

# BUSINESS WEEK

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AGO



Rhoades of Kaiser Aluminum: Growing east toward the market (page 90)

A MCGRAW-HILL PUBLICATION

FEB. 19, 1955

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M.E.K.? That's industry's pet name for *methyl ethyl ketone*. It used to be a mere trickle from wood distillation. Now MEK flows in abundance from petroleum. Industry goes for it . . . head over heels.

For instance, as a solvent, MEK is the industry favorite in making fine lacquers. In refining lube oils, MEK is the chemical "magnet" that takes out unwanted wax. Insecticides, rubber-

based adhesives, plastic cocoons for mothballing equipment, printing inks and engine cleaners are some of the products that benefit from MEK.

Providing the major supply of methyl ethyl ketone is one way in which Shell Chemical serves industry. Shell Chemical's products or services can surely improve your manufacturing techniques, reduce costs, or in fact give you a variety of benefits.

# Shell Chemical Corporation

Chemical Partner of Industry and Agriculture

NEW YORK



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RESEARCH KEEPS

# B.F. Goodrich

FIRST IN RUBBER



Photo courtesy Construction Aggregates Corp., Chicago, Ill.

## A rubber gangplank for tomorrow's turnpike

*A typical example of B. F. Goodrich improvement in rubber*

THAT'S wet, sharp gravel being loaded on a ship. With millions of tons needed for new highways, gravel must be handled at low cost. A conveyor belt to shipside was the fastest and cheapest way.

But the wearing avalanche of 2800 tons an hour dumped on the belt cut and tore the rubber cover, broke the fabric reinforcement. Then engineers suggested a B. F. Goodrich cord belt. It is built with cords, running lengthwise, held in place by rubber. When heavy loads hit this belt it "gives"—absorbs the shock instead of fighting

it. The rubber in the belt is so tough it can stand the cuts and gouges of millions of sharp edges. When this picture was taken, the B. F. Goodrich cord belt had carried more than 14 million tons, had lasted longer than any belt ever used by the company, and still looked good for years more.

Product improvement like this is always going on at B. F. Goodrich. New ways are constantly being found to make conveyor belts, V belts, hose, all sorts of products work better, last longer. No product is ever regarded as "finished" or standardized.

*How this cuts your costs:* Because of these improvements and because B. F. Goodrich is one company that will never lower its quality standards, you can be sure of top performance and real money savings when you specify B. F. Goodrich. To find out about the latest improvements in the rubber products your company uses, call your B. F. Goodrich distributor or write The B. F. Goodrich Co., Dept. M-374, Akron 18, Ohio.

**B.F. Goodrich**  
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# REMINGTON RAND UNIVAC



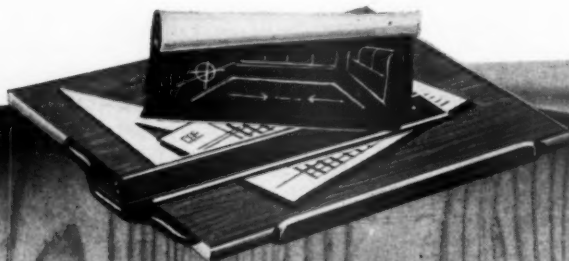
## *Not on the Drawing Board, Not "On Order"...* **IN ACTUAL BUSINESS USE!**

The Remington Rand Univac is the *only* giant electronic data-processing system of its type now being delivered... the only one actually proven in business use. No comparable system handles the alphabetic and numeric data needed to turn out payrolls, control inventories, and perform the other down-to-earth routine tasks vital to American industry.

In today's competitive market, the company which cuts its overhead *first* comes out on top. Univac is already at work in many organizations, so don't wait until 1956... 1957... or 1958 to

cash in on the tremendous savings available with this large-scale electronic business system. The time to act is *now*, to prevent your lagging perilously behind competition in the years to come.

There's no need to wait for equipment which is "just around the corner." Read why, in an impartial article on electronic computing for business, written by management consultants of a nationally known public accounting firm. Write to Room 1205, at the address below, for your free copy of this informative survey, "Electronics Down To Earth."



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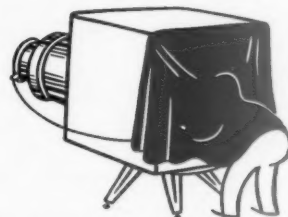
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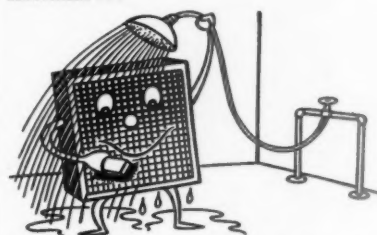
BUSINESS WEEK • Feb. 19, 1955

# AIR-MAZING FACTS

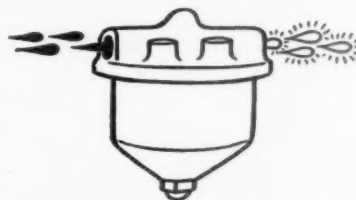
BY O.SOGLOW



**500 LB. CAMERA TAKES DUST SPECK'S PICTURE!** To study dust characteristics, a 500 lb. camera has been built. It requires 3 kilowatts of current and 2 million candlepower to photograph an individual dust particle in mid-air. But picking up dust particles and disposing of them is no problem for an Automaze...



**NEW FILTER CLEANS ITSELF!** You don't have to clean an Automaze air filter. It cleans itself—automatically! Automaze's continuous belt of filter panels rotates through a cleaning tank where "pulse-type" action agitates each panel, removes the accumulated dirt. Goes 3 to 6 months without attention.



**KEEPS OIL SPIC AND SPAN.** Air-Maze liquid filters remove abrasive particles from engine lubricants, fuels and hydraulic fluids. "Disc" construction provides many times more net effective filter area than other types of permanent filters. All-metal construction. Like new after cleaning.

**IF YOU BUILD OR USE** engines, compressors, air-conditioning and ventilating equipment, or any device using air or liquids—the chances are there is an Air-Maze filter engineered to serve you better. Representatives in all principal cities. For condensed product catalog, write Air-Maze Corporation, Dept. C, 25000 Miles Rd., Cleveland 28, Ohio.

# AIR-MAZE

The Filter Engineers

AIR FILTERS • SPARK ARRESTERS • LIQUID FILTERS  
SILENCERS • OIL SEPARATORS • GREASE FILTERS



# "It's a wall with a window That's Truscon's Vision Vent!"



Vision-Vent is Truscon's new wall panel that incorporates all the mass production and installation economies of standard steel windows. Each unit is complete, with fixed lights and insulated steel panel. Window openings may be awning-type ventilators or Truscon Double-Hung Steel Windows. Elements can be varied to meet specific requirements.

Weather-tight Vision-Vent panels are designed to cover entire wall surfaces. Erection is done from inside, and can average a floor-a-day rate.

## REPUBLIC STEEL

*World's Widest Range of Standard Steels and*

**SPECIFY TRUSCON STEEL JOISTS, ROOFDECK...ELECTRUNITE E.M.T. FOR FIRE RESISTANCE**



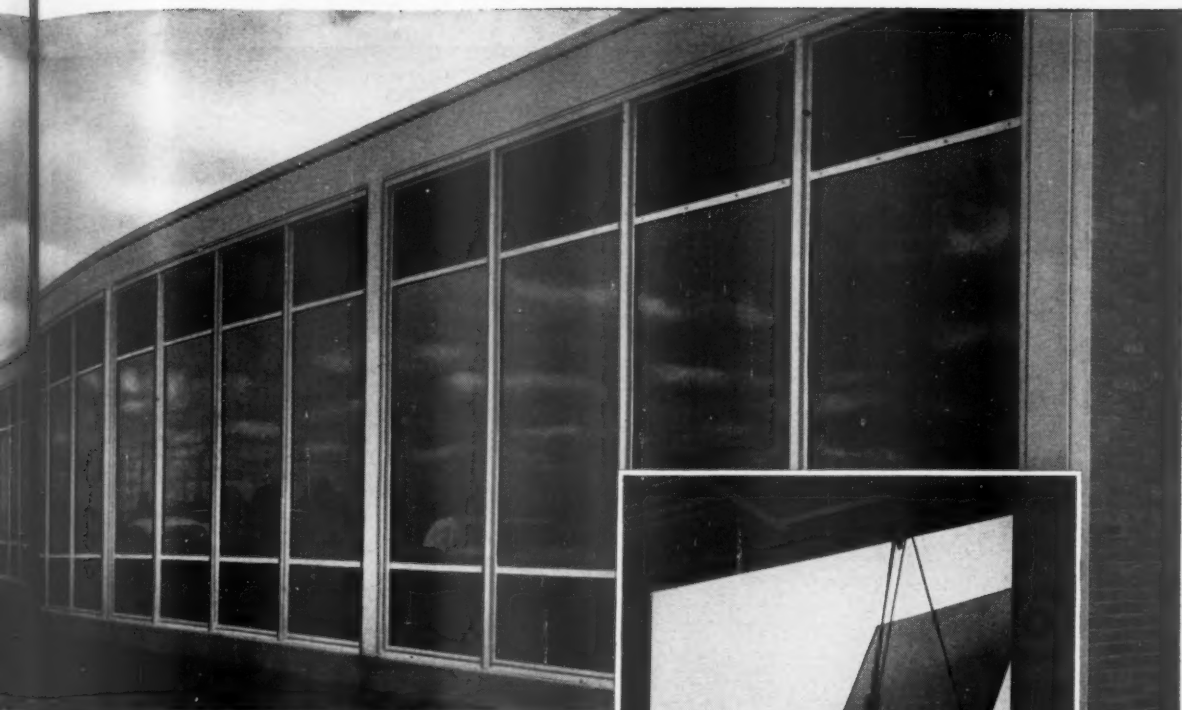
Truscon "O-T"® Steel Joists assure you lightweight, strength, and fire resistance in floors and roof construction. Truscon Ferrobord® Steeldeck is easy to handle, easy to place. It comes in lengths that span three or more purlins. It roofs large areas quickly. Exclusive design allows full-length interlocking, greater strength.

ELECTRUNITE® Electrical Metallic Tubing is Republic's lightweight, rigid steel raceway that protects wiring circuits against fire, moisture, and mechanical injury. Inspected by Underwriters' Laboratories. Approved by National Electrical Code for exposed, concealed, or concrete slab construction. Exclusive "Inch-Marked"® feature means installation savings.



Wherever clothing  
Republic's B  
standard and speci  
"Control" locker  
Look to Berger





United Airlines, Midway Airport, Chicago, Ill.  
 Skidmore, Owings and Merrill, architects. Algot B. Larson, contractor.

insulated panels may be colored porcelain enamel or stainless steel. "U" factor is equivalent to that of an ordinary masonry spandrel wall. They retain interior heat. They provide for efficient air conditioning.

Several dozens of new Vision-Vent applications have been engineered to provide simplicity of design, weather resistance, low initial cost, low maintenance cost. You'll be interested in the details. Write Republic's Truscon Steel Division, Youngstown 1, Ohio.



## STEEL

*Standard Steels and Steel Products*



Wherever clothing is changed or stored, Berger Steel Lockers are first choice. Republic's Berger Division is the world's leading producer of standard and special purpose lockers—including exclusive handle-free "Key-Control" lockers. The key is the handle to assure full-time locked protection. Look to Berger for planning, engineering and installing locker systems.

REPUBLIC STEEL CORPORATION  
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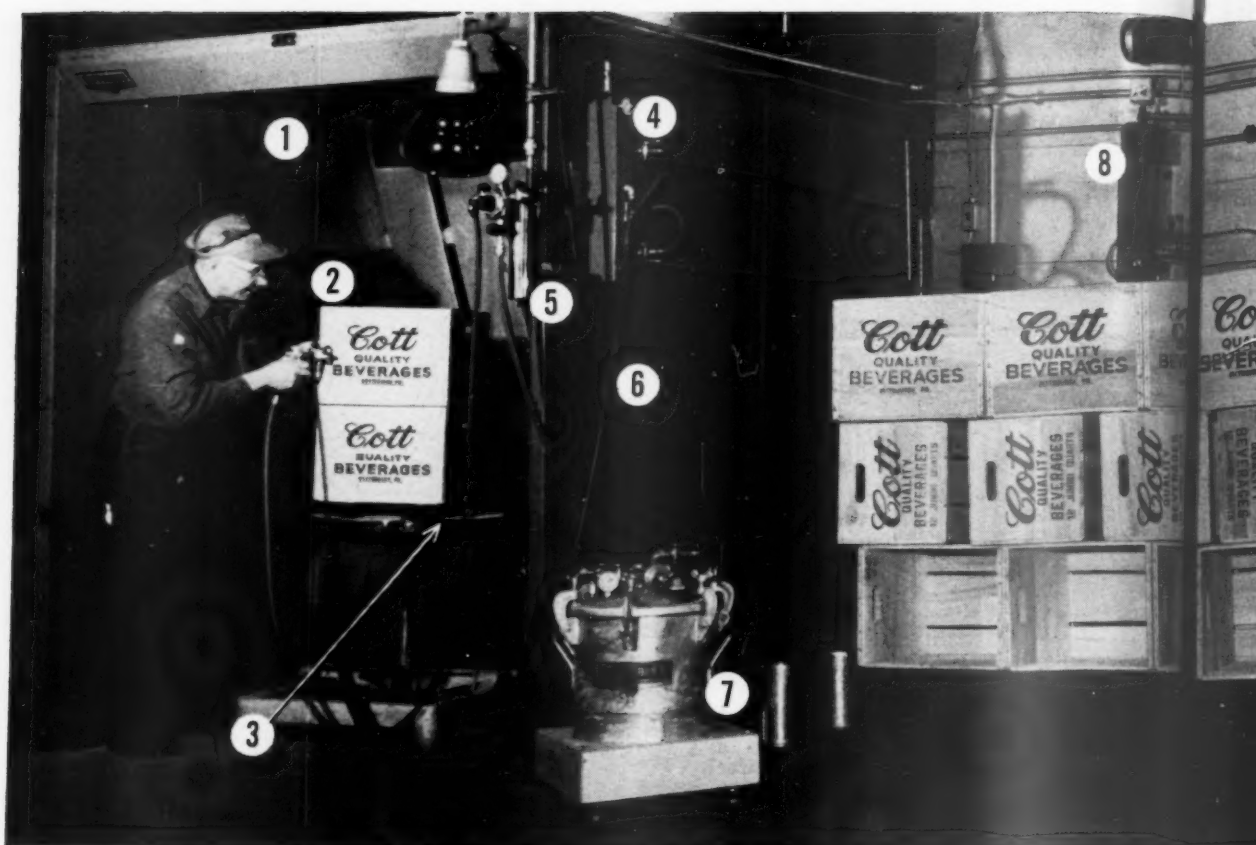
- ☐ Truscon Vision-Vent Walls    ☐ Truscon "O-T" Steel Joists  
☐ Truscon Ferrobord Roofdeck    ☐ Electrunite E. M. T.  
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## DeVilbiss hot-spray system is re

**B**ETTER finishes with fewer coats! Spectacular savings in time and material costs! Lower air and fluid pressures! Uniform material viscosity, regardless of room temperature!

Phenomenal benefits like these can be yours with a DeVilbiss paint-heating system, designed especially for industrial finishing.

Take the Standard Box Company, Pittsburgh, Pa., for example. Box makers for over 38 years, Standard had the problem of providing a protective coating on beverage cases — for longer life, better appearance.

Said Standard's president, Julius Sheps, "We used clear lacquer. For workability, the usual lacquer-thinner ratio of 1 to 4 was required. This meant three or four applications to give adequate protection to our boxes. Extensive thinner usage and multiple coats made costs prohibitive.

"We'd heard of DeVilbiss' new paint heater, and it turned out to be the perfect answer. With the

DeVilbiss hot-spray system, we're now getting superior material flow, even spreading, better film build, better drying and a tack-free surface. The lacquer-thinner ratio is now reversed, providing four times as much solids per coat, saving on labor as well as thinner costs. We are not just satisfied with the results . . . we are delighted!"

Let a DeVilbiss representative help solve your finishing problems. The standard components of DeVilbiss' paint-heating system can be combined in countless ways to meet your special needs. There is but one source for complete hot-spray equipment, technical skill and responsibility that will improve your finishing operations — DeVilbiss.

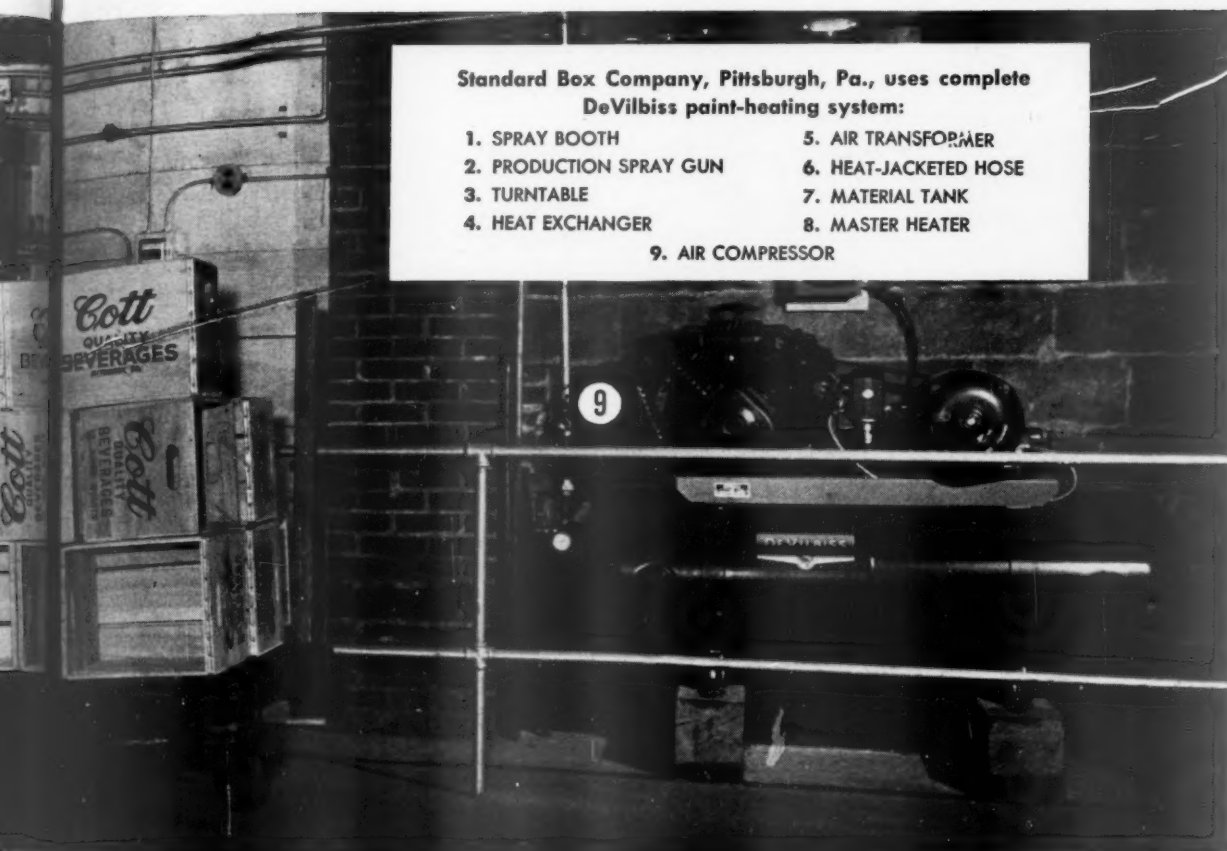
### THE DEVILBISS COMPANY

Toledo, Ohio

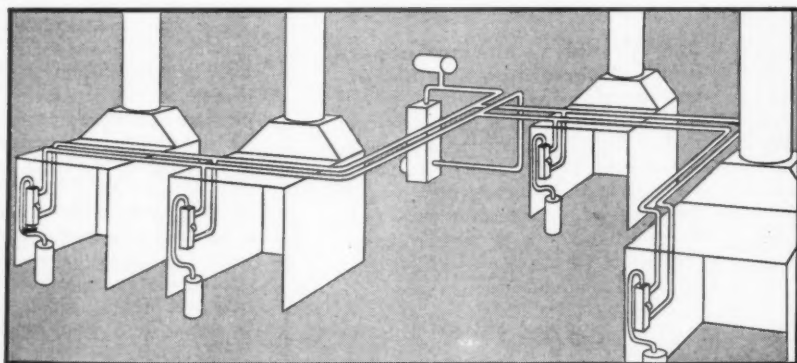
Santa Clara, Calif. • Barrie, Ontario  
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Standard Box Company, Pittsburgh, Pa., uses complete  
DeVilbiss paint-heating system:

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| 1. SPRAY BOOTH          | 5. AIR TRANSFORMER    |
| 2. PRODUCTION SPRAY GUN | 6. HEAT-JACKETED HOSE |
| 3. TURNTABLE            | 7. MATERIAL TANK      |
| 4. HEAT EXCHANGER       | 8. MASTER HEATER      |
| 9. AIR COMPRESSOR       |                       |



is revolutionizing industrial finishing



Typical paint-heater installation, involving four spray stations. Single large-capacity master heater serves all four operators. Paint tanks at each station supply materials. Four operators can spray simultaneously. Consult your DeVilbiss representative for complete details.

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IN these and hundreds of other cases involving insulation, fabrication, lamination, processing or packaging — Mosinee papers play an important part in getting optimum results with minimum trouble and expense.

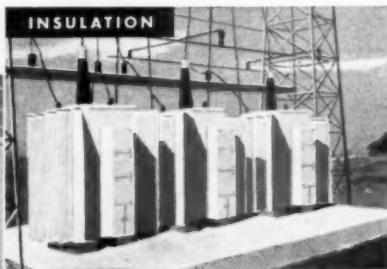
It will pay you to find out how Mosinee experts cooperate with industry to develop specialized papers. Current applications of Mosinee papers will suggest immediate ways in which you can make substantial savings in time and money. Write today for complete information.



**Mosinee flame-resistant papers increase safety factor of filters employed in warm air heating systems.** The process of making these papers flame-resistant was developed by Mosinee technicians. This process, applicable to many types of paper, may help you solve a product or processing problem.



**Evaporative cooler pads for room coolers are made from Mosinee controlled paper.** A high rate of moisture absorption with wet strength are two of the critical properties of this highly specialized paper. In addition, this paper must be adapted to easy slitting and expanding in the conversion operation for pad construction. Here's typical Mosinee precision control at work.



**Special analysis Mosinee papers improve performance of electrical components.** These electrical insulation papers must be closely controlled to provide a low ash and chloride content. They are used extensively as layer insulation between turns of field coils and in transformers — from the smallest to one of world's largest. Ask about Mosinee papers for your electrical requirements.

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Specialists in industrial paper technology —  
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## READERS REPORT

### Kw or Kwh?

Dear Sir:

Please refer to your issue of Jan. 29 '55, pages 17 and 18 [Business Outlook], and note last paragraph on p17 . . . which refers to capacity of electric power this year as 115 million kw.

On p18, the second paragraph refers to last week's electric output as almost 10-billion kwh.

Wouldn't it be easier to stay either in kw or kwh for comparison purposes?

D. W. SMITH, JR.

YPSILANTI, MICH.

• It is an unfortunate fact that one can define capacity only in terms of kilowatts, while output is measured in terms of the number of hours each kilowatt of capacity was operated. Therefore, you need to use both terms, if you want to compare both capacity and output. We will try to restrain ourselves in the future and talk about only one thing at a time.

### Package Deal for Waste

Dear Sir:

In BUSINESS WEEK Jan. 22 '55, p78 you publish an article titled Waste Experts . . . about a contracting company combined with a sanitary engineer, which is prepared to offer industrial plants "complete package deals" to take over entire waste problems: study, recommendation of type of treatment, design of facilities, construction, and instruction on operation.

For those industries seeking a painless and wash-hands solution to a knotty problem, this package deal may appear to be a simple answer. Were the solution of industrial waste problems so standardized, the many extensive research projects, the building of pilot plants, and the long-range studies now in progress by many industries would be mere wasted efforts. The package deal, however, may not be the simple approach it seems, and your article raises the following questions.

How can a contractor undertake to build the necessary facilities to solve an undefined, ramified problem which usually requires many in-plant alterations? How can the owner do much more than issue a blank check, and hope for the best? Surely the package deal must pursue the same basic engineering investigation to find the most eco-



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## ACCURATE DRILLING IN STEP WITH MASS PRODUCTION

Tool engineers have been quick to take advantage of the adaptability, speed and accuracy of Keller's new drilling machines. When Keller "Airfeedrills" are attached to special fixtures they devise, they get more accurately drilled holes in less time at lower production costs.

Typical is the instance illustrated above. Fifteen Airfeedrills are mounted on a specially built fixture

to drill holes in a section of the instrument panel for an automobile.

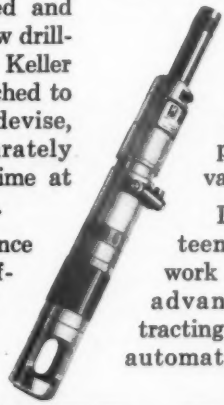
The section is placed in the fixture and clamped, and the operator presses a control valve.

Immediately all fifteen Airfeedrills go to work . . . simultaneously advancing, drilling, retracting and shutting off automatically. The entire

drilling cycle takes only 13½ seconds.

After several months when models are changed, the Airfeedrills will be detached for 100% salvage, and the only obsolescence will be the relatively inexpensive fixture.

Is your plant using these remarkable machines to put drilling in step with other production? It is one of the many Keller Tools engineered to help industry produce more goods at lower cost.

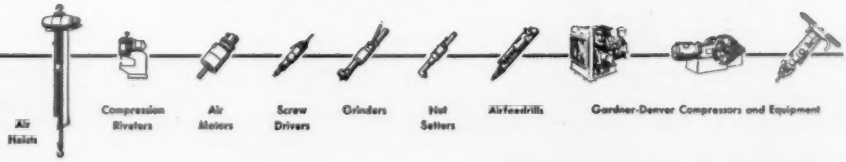


# KELLER TOOL

## DIVISION OF GARDNER-DENVER



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# These people are ALONE TOGETHER



Hundreds of possible combinations from Arnot interchangeable units.



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Alone together, thanks to Arnot PARTITION-ettes\* and OFFICE-ettes†, they do more work with less strain.

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nomical solution of the waste problem as would professional engineers. Why should the large expenditure for construction be performed without competition merely because the contractor offers engineering service in a package? How does the owner know he is getting first-class independent engineering thinking? What is to prevent some other hustling contractor teaming up with engineers who have but little sanitary experience, and offering similar packaged jobs? Does any businessman think he's going to get free engineering?

Industrial waste problems for many years have been handled by competent professional engineers selected by the owners for their merit and experience in the sanitary field. These engineers offer advice and make recommendations, uninfluenced by anything but what is the proper course to pursue. . . . Plans and specifications are prepared and competitive bids are taken from qualified contractors. In this manner the owner obtains the best engineering at the lowest cost of construction. To circumvent this process by a package deal, whose main advantage is the doing of business under one contract, the owner may well obtain neither the best engineering nor the lowest cost of construction.

G. J. REQUARDT

WHITMAN, REQUARDT &  
ASSOCIATES  
BALTIMORE, MD.

## The School Shortage

Dear Sir:

I read the excellent editorial . . . The Coming Crisis in Education [BW—Jan. 1 '55, p. 76] . . . and want to thank you and your staff for bringing this important problem to the attention of your readers. I am sure it will do a great deal of good.

GLORIA DAPPER

ASSISTANT DIRECTOR  
NATIONAL CITIZENS COMMISSION  
FOR THE PUBLIC SCHOOLS  
NEW YORK, N. Y.

## Management & Costing

Dear Sir:

Your comments in A Better Yardstick for Costs? [BW—Jan. 15 '55, p. 102] were read with considerable interest because I spent a year, while on the Harvard Business School staff, doing research for and writing a doctoral thesis on direct costing. . . .

My evidence indicates that there



Another example  
of  
efficient power  
at lower cost



## *How an Atlantic rescue* **SAVES DOLLARS IN TEXAS!**

**O**IL men in Texas and seamen on the Atlantic have at least one thing in common—they both use Cooper-Bessemer engines.

In the example pictured here, Merritt-Chapman & Scott's Cooper-Bessemer powered rescue vessel, Curb, is shown taking in tow the blazing freighter Black Gull. After a fast 165-mile tow back to New York the fire was killed, the vessel saved.

Cooper-Bessemer has learned the sure way—by long experience—how best to build the extremely rugged, completely dependable diesels needed by hard-working vessels like the Curb. This learning never stops. And you can bet your bottom dollar that it finds its way into Cooper-Bessemer engines of other types.

This *scope* of power experience is one thing that enables Cooper-Bessemer to save money for users

*everywhere.* It saves plenty of dollars in the oil field, in new petrochemical plants, on the rails, in powering our huge cross-country pipe lines . . . wherever Cooper-Bessemers are used!

The nearest Cooper-Bessemer office will be glad to give you data on a better, money-saving engine for any heavy-duty power job you may have in mind.



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# marble

economically bridges the gap  
between classic and modern

**Writes Architect Amedeo Leone:**

"The use of exterior marble in the Federal Reserve Bank addition was determined by the existing building. Even though the addition was entirely modern in its concept and use, we were able to achieve a successful tie-in with the existing classic building by the same use of material . . .

"The cost of the interior marble was approximately .9% and the exterior 4.5% of the total cost of the building. The percentage ratio cost of the marble to the total cost of the building is unusually low as the basement with the vaults, etc., and foundation work were costly items which would not have occurred in a typical office building."

*For more complete data on the basic economy of marble write Marble Institute.*



Federal Reserve Bank addition,  
Detroit, Michigan  
Smith, Hinchman & Grylls, Inc.,  
Architects & Engineers  
Minoru Yamasaki,  
Design Consultant

PHOTOGRAPHS BY EZRA STOLLER

MARBLE  INSTITUTE OF AMERICA, INC.  
108 FORSTER AVENUE, MOUNT VERNON, NEW YORK

are many executives who often follow the direct costing approach in their thinking with respect to managerial decisions, even though cost and accounting data are not presented on this basis.

Whether or not direct costing will become "conventional accounting" in the future cannot be predicted at this time. However, it has already made a significant contribution to the accounting profession because of the discussions and soul-searching which it has provoked.

DANIEL C. LEWIS

SECRETARY, MANAGEMENT ADVISORY  
COMMITTEE  
LYNCHBURG FOUNDRY CO.  
LYNCHBURG, VA.

Dear Sir:

The fable on page 102 of your Jan. 15 issue illustrates the need for intelligent management rather than for direct costing. Either the 200 per cent excess capacity is warranted by foreseeable needs of future years, in which case such future should be charged with the cost, or the factory should be drastically reorganized so as to eliminate or divert the capacity not required.

There are relatively few costs that are more than temporarily fixed. Even costs set by contract, government assessment or past expenditure can be re-negotiated or reallocated. Between 1929 and 1932 many companies were able to reduce their so-called fixed costs relatively more than their so-called variable costs.

A change to direct costing would, in most cases, be a change in the wrong direction. It would add more conservatism to years already overburdened with conservatism, and transfer charges from the high-sale years that get the benefit to the recession years least able to pay.

An incomplete cost distinguished only by its degree of variability is not likely to be comparable for very long when conditions and methods change. One could not know whether an apparent change in the variable cost was due to improved efficiency or to an offsetting change in the fixed cost. The complete factory cost, on the other hand, is sufficiently differentiated from non-factory costs to permit comparisons over a longer series of years.

The profit for any period is correct only when its gross income has been charged with all of the costs which were incurred to produce such income. If we maintain an upper layer of capacity which can be used only in the peak years,



the profit of the peak years will be overstated unless it has been charged with the expected idle time as well as with the used time. For example, if the cost of maintaining physical and organizational capacity is 100-100-100 but only one year out of every three is expected to use more than 85 per cent of such capacity, the cost should be divided 85-85-130. . . .

E. STEWART FREEMAN  
CHARLOTTESVILLE, VA.

## A Smaller Debt

Dear Sir:

On page 60 of the Jan. 29 issue of BUSINESS WEEK . . . is a chart and an article . . . Mortgage Debt Outstanding. In it, you quote Dr. George Conklin, financial vice-president of Guardian Life Insurance Co., stating that "1.3-million new starts this year would require around \$26-billion of new mortgage money. . . ."

Dr. Conklin was talking of a volume of housing considerably in excess of 1.3-million. He said that if the starts volume were to go at the December rate—an unlikely thing—that it might get as high as 1.5 or 1.7-million, in which event there would, undoubtedly, be mortgage credit problems. He also could not have said that 1.3 million starts would require \$26-billion of new mortgage money. Based on 1954's figures on mortgage recording, the average mortgage recorded was less than \$7,000. At this rate 1.3-million new housing starts would utilize somewhat over \$9-billion—not \$26-billion of mortgage money. . . .

What Dr. Conklin actually said, as I recall . . . was that 1.7-million new housing units might involve a mortgage recording of as high as \$26-billion, but the recording series include not only new and existing housing, but also the refinancing of a large number of units.

During 1954, we had approximately \$22-billion of mortgage recordings covering somewhat over 3-million mortgage transactions. The new money involved in 1954's mortgage debt was \$8.5-billion. The remainder of the money comes from money previously invested in housing and comes out of repayments, amortization, etc.

The new money involved in 1955's debt should be not more than one-half to one billion dollars more. . . .

NATHANIEL H. ROGG

ECONOMIST  
NATIONAL ASSN. OF HOME  
BUILDERS  
WASHINGTON, D. C.



# PUSHBUTTON DICTATION

...lets you work  
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Modern, low-cost PhonAudograph makes dictation as easy as that! You handle no complex machinery — you have nothing to learn or practice! A familiar telephone handset is your "microphone" — your words are recorded right at your secretary's desk. You dictate at your convenience; she has more time to relieve you of administrative detail. For a free demonstration call your Audograph dealer today — or write us for your copy of "The Miracle of Pushbutton Dictation."

## GRAY PHONAUDIOGRAPH

The Gray Manufacturing Company  
Hartford 1, Connecticut

AT THE FRONTIERS OF PROGRESS YOU'LL FIND....

# The new Airco #48 Duograph

Flame-cutting steel  
with an oxyacetylene machine



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The shape cutting machine shown at left is the new Airco #48 Duograph. It is unique in that it provides the metalworking industry with the close-tolerance accuracy of heavier, more elaborate machines at low cost. Economy is, of course, always a desirable feature, but it is particularly important in small, tight-budget operations which require a high degree of accuracy and performance for cutting equipment.

For instance, with this machine the operator can shape-cut four 4-foot circles at once from an 8-inch thickness of mild steel. All torches can be guided by the accurate Airco Electronic Tracer, the magnetic tracer, or the manual tracer — the identical tracers used with the well-known Airco Oxygraph and Travograph machines. The machine cuts so closely that only a light grind or finishing operation is required, saving time, reducing operating costs.

New developments like the Airco #48 Duograph... the Aircospot inert-gas-shielded welding gun and the Aircomatic<sup>®</sup> welding process continue to keep Airco in the forefront as a key source of metalworking equipment. For a brief glimpse of other Air Reduction products, and the role they play in all types of industry, refer to the column at right.

And if you would like more detailed information about the products and services of Air Reduction and its divisions, write for the 36-page booklet "Facts About Air Reduction."

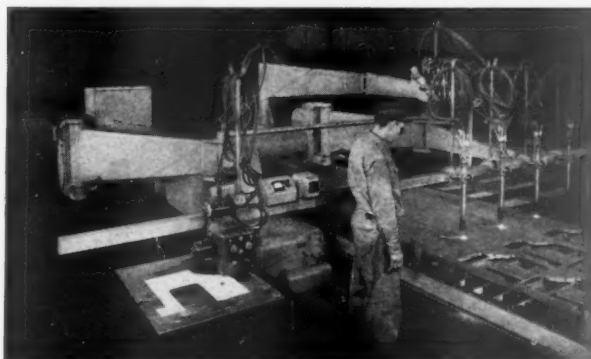
## AIR REDUCTION

AIR REDUCTION COMPANY, INCORPORATED  
60 East 42nd Street • New York 17, N. Y.

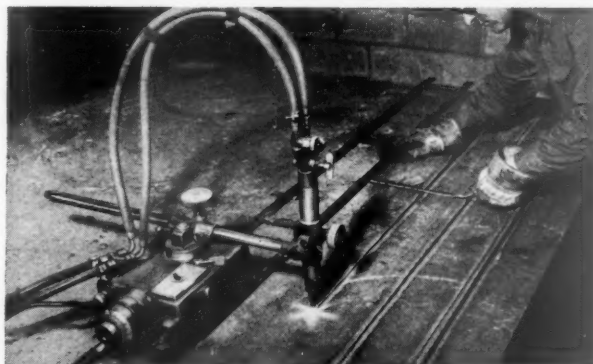
Divisions of Air Reduction Company, Incorporated; AIR REDUCTION SALES COMPANY, AIR REDUCTION PACIFIC COMPANY . . . Industrial Gases, Welding and Cutting Equipment • AIRCO EQUIPMENT MANUFACTURING DIVISION . . . Manufacture of Welding and Cutting Equipment, and Related Products • NATIONAL CARBIDE COMPANY . . . Pipeline Acetylene and Calcium Carbide • OHIO CHEMICAL & SURGICAL EQUIPMENT CO. . . Medical Gases and Hospital Equipment • PURE CARBONIC COMPANY . . . Carbon Dioxide, Liquid-Solid ("Dry-Ice") • AIR REDUCTION CHEMICAL COMPANY . . . Acetylenic Chemicals • COLTON CHEMICAL COMPANY . . . Polyvinyl Acetates, Alcohols, and other Synthetic Resins • AIRCO COMPANY INTERNATIONAL . . . Export • FOREIGN SUBSIDIARIES: AIR REDUCTION CANADA LIMITED, CUBAN AIR PRODUCTS CORPORATION



• The Airco Electronic Tracer, using a phototube system, guides the flame cutting machine torches and follows the outline of a drawing or paper cut-out by automatic control. The big savings from using this Airco tracer result from the low preparation cost of outline drawings in place of expensive templets, and the cutting accuracy it provides.

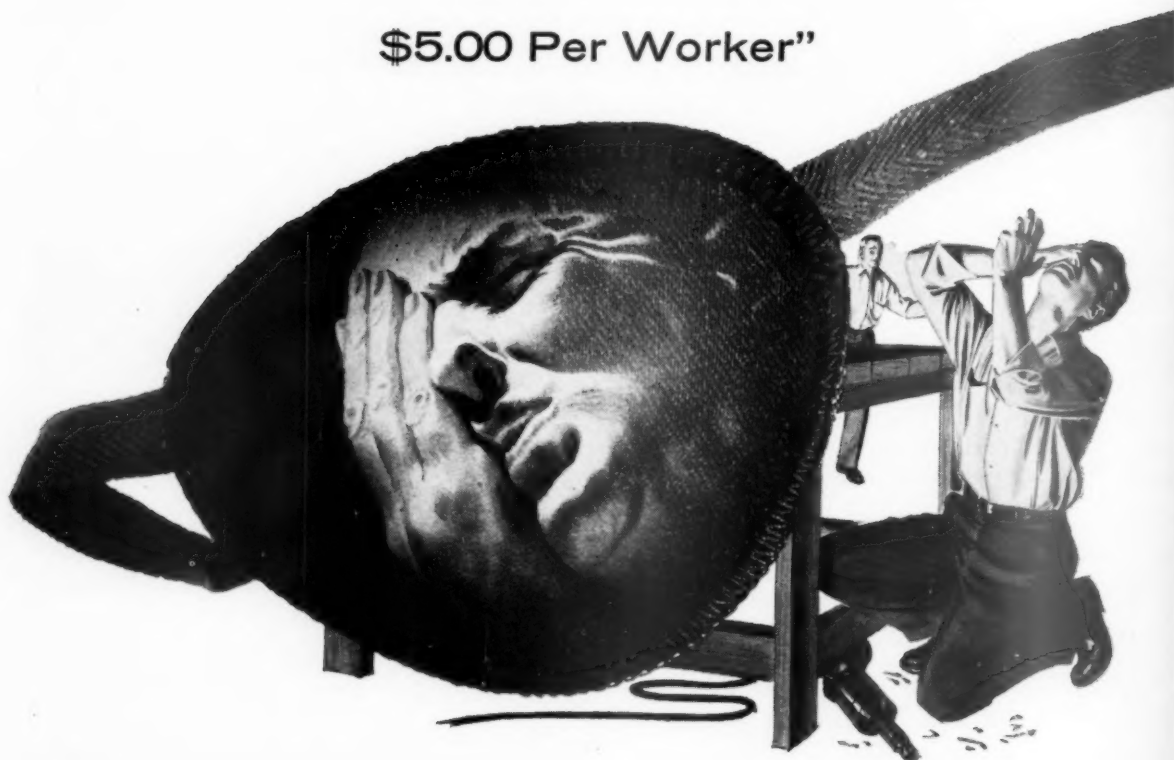


• The Airco No. 50 Travograph is a large-area, stationary production machine used for mass producing unlimited varieties of identical flame cut shapes out of varying thicknesses of steel. Up to eight torches can cut simultaneously with any of the same three tracing devices used with the No. 48 Duograph.



• The Airco No. 10 Radiograph is a light weight, motor driven cutting machine within the price range of practically every shop. Weighing only 41 pounds, this popular machine is easily moved from job to job. It excels in cutting straight lines of any length or circles from 3 to 85 inches — with either square or beveled edges in metal up to 12 inches thick.

We've been saying  
 "Eye Accidents Cost More Than  
 \$5.00 Per Worker"






**Here's One that Cost \$3,674.88!\***

A riveter while reaching under a table to receive his rivet gun sustained an injury causing permanent partial disability consisting of the loss of his right eye. The trigger caught on a protuberance which operated the mechanism, permitting an inrush of air to the gun. This caused the rivet-set to fly out and strike the claimant in the eye. Outcome: An award of \$2,449.92 was made as normal compensation plus an additional one-half of that sum for the "willful" misconduct of the employer in failing to provide adequate safeguards.

Are you and your workers protected? The cost is low indeed when you consider that 98% of indus-

\*In compensation alone

trial eye accidents can be prevented for an average investment of \$2.30 per worker in high quality  safety glasses. Yes, and there are other benefits in lowered insurance costs, savings on idle machine charges and maintained production. Always look for the  monogram on safety lenses and frames. It is your assurance of quality. Write American Optical Company, 512 Vision Park, Southbridge, Mass., for booklet. Or ask an  Safety Representative to call.



†T.M. Reg. by American Optical Company

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SOUTHBRIDGE, MASSACHUSETTS • BRANCHES IN PRINCIPAL CITIES



# BUSINESS OUTLOOK

BUSINESS WEEK

FEB. 19, 1955



Gently upward; that's the way production was moving in January, and that is likely to be characteristic of the next several months.

The Federal Reserve Board's January index, just out, sets the tone.

The upthrust that carried from 123 in August to 130 in December (seasonally adjusted) has moderated. January added only one point.

A thumbnail sketch of production developments shows autos and steel still leading the parade. Building materials aren't much changed from their already high rate. Chemicals and petroleum are top-notchers among the nondurable goods industries.

TV, with a natural after-Christmas letdown, is one of the few losers.

Consumers are supporting the business recovery—just as they resisted the letdown last year.

That's the story jingled by stores' cash registers so far this year (except for a few snowy, sub-zero days recently).

Retailers look for the next six weeks, at least, to stay well ahead of last year. And here are some of their reasons:

- There are no grounds to hold off buying, as people did last year, waiting for the excise tax to come off wanted goods.
- Income tax day—now Apr. 15—comes after the Easter buying peak.
- March sales will benefit from the earlier Easter this year.
- The whole economy is pointing up now in contrast to a year ago.

Customers last month shelled out the most dollars for any January.

Spending at retail hit \$13.3-billion, the Commerce Dept. estimates. This was \$1-billion more than the same 1954 month, and \$250-million more than in 1953, the previous record for a January.

Here are the record breakers: food, \$3.4-billion; automotive establishments, \$2.7-billion; service stations, \$931-million.

Apparel, unlike most goods at retail, failed to match its year-ago totals in January.

Some merchants contend that the calendar was working against apparel. Stores do about one-third of their week's apparel volume on a Saturday. January had only four Saturdays this year; last year, it had five.

Pre-Christmas business, too, left its imprint on January turnover. Cold weather came earlier in 1954, pushing the fourth quarter's apparel business 5% ahead of its year-before level.

This thinned stocks, cut promotion of leftovers in January.

Furniture and appliance stores, after a quite satisfactory January, see their volume holding up very well indeed.

Their ace in the hole is, of course, the housing boom.

# BUSINESS OUTLOOK (Continued)

BUSINESS WEEK

FEB. 19, 1955

January posted another record for new dwelling units started.

Not even in 1950, best housing year to date, did the first month of the year come up with a figure to match last month's 88,000 starts. And this year was fully 33% above 1954's faltering beginning.

Housing starts in the last five months have been so far ahead of anything even seen before (allowing for the time of year) that the industry's backlog alone is enough to carry it well into the spring.

More than half a million homes have been started in this period. Closest previous approach was 490,000 in the same 1950-51 months.

—•—

For the record: Dollar volume of all retail stores, at first reported at a new high in 1954, apparently ran ever so slightly behind the 1953 mark. Revised figures pulled December down from its towering high of \$18-billion to \$17.9-billion—and that did it. They were that close.

December of 1954, nevertheless, still stands as the all-time high.

—•—

Christmas sales, if they are good, usually swell money in circulation as well as retail credit. But last December, even though it accounted for the biggest sales ever, was different.

- Currency in circulation declined from its November level and also was below its year-earlier mark.

- Credit didn't make the difference. Charge account debt rose just about the same as it did the year before.

Probably more people had more money in checking accounts—and thus needed neither to charge things nor carry a bundle of bills.

—•—

What people owe—how deeply future pay checks are in hock—always worries economists. The present is no exception.

Most will agree that the danger (if there is a danger) lies in the rapid growth of individuals' debt rather than its present level.

Mortgage debt, in particular, gets a critical eye, both for (1) its inflationary potential now, and (2) the damage it could do the whole real estate market at a later date if things turn sour.

Home mortgages (at \$75-billion) are very high. But they aren't any higher, in relation to personal income, than in 1929 (if that is good).

The main difference, though, is in mortgage terms.

The Chase National Bank considers the situation "far sounder than in the past," citing: (1) lower interest, (2) amortization, (3) elimination of second mortgages, and (4) longer repayment periods.

Peoples' borrowings will be a key factor in the months to come—financing the sale of today's record auto and home output.

And that's what makes the problem double-barreled: However desirable it might be to guard against inflation by curbing loans, the restraints almost certainly would quickly knock the business upswing on the head.

INDUSTRY GEARS FOR HIGHER PRODUCTIVE STANDARDS

CLEARING

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C.P.C.\*

helps

GENERAL ELECTRIC increase the pace

With rising labor and material handling costs in the production of refrigerator compressor housings, General Electric presented their problem to C.P.C.—Clearing Productivity Consultants. The result is the transfer-feed press shown above to produce top and bottom halves of the compressor housing at the same time. This

press replaces a conventional method involving several machines, a crew of men and considerable handling of material.

The new transfer feed press loads blanks into the stack feeder and automatically moves the parts from station to station as the press operates. Top and bottom halves of the compressor housing are completed

in alternate strokes by the red slide shown in the photo. From there they are transferred to the unloading station.

In Clearing's staff of engineers there are specialists in every field of press metal forming. They are ready to work with you to step up the pace of your production. Call or write Clearing without obligation.

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# ELECTRONIC BRAIN

## GUI

MEMORANDUM  
Office of the President

1/4/55

JLH:

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RAYTHEON

There is a big story here - and nothing in it  
actually classified - but what will be gained  
by publishing it?

It might give comfort to the communists to tell  
them anything at all about our missile work.

The equipment Raytheon is producing for the  
security and defense of the country is so  
~~important~~ that we can't afford to take any risks.

It seems to me there is a message we should  
print, however--one in which every American can  
take pride and confidence: Raytheon's government  
contracts are being carried out by many of the  
nation's ablest scientists, engineers and workers.  
These fine people have a deep respect for the  
quality of the electronic equipment they make.  
They know its importance to the welfare and safety  
of a free people. What do you think?

*Jack -  
This is a matter of policy -  
Please see me -*

*CFAH*

C. F. Adams, Jr.

RAYTHEON MANUFACTURING COMPANY, WALTHAM 54, MASS.



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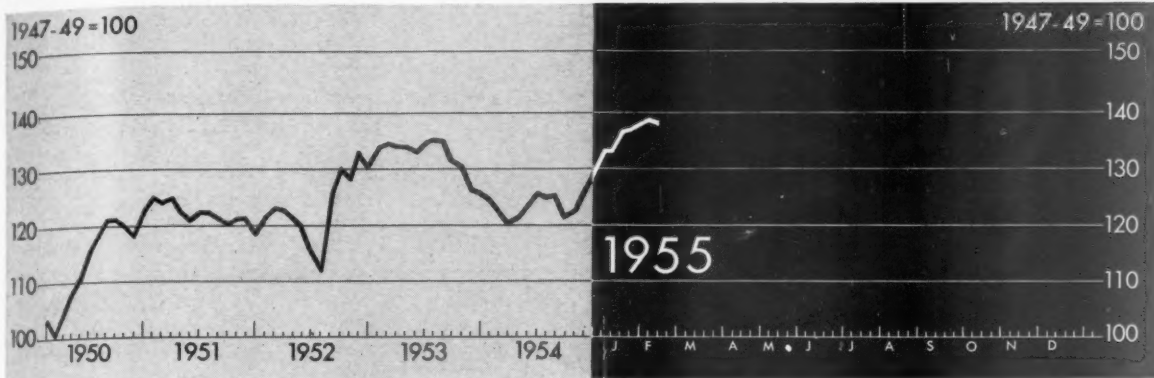
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BUSINES



# FIGURES OF THE WEEK



**Business Week Index (above)** . . . . . \*138.6 †139.0 †137.2 123.5 91.6

## PRODUCTION

Steel ingot production (thousands of tons).....	2,129	†2,095	2,008	1,779	1,281
Production of automobiles and trucks.....	190,325	†190,140	184,362	141,570	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands).....	\$44,832	\$45,601	\$56,953	\$30,954	\$17,083
Electric power output (millions of kilowatt-hours).....	9,922	10,047	9,928	8,684	4,238
Crude oil and condensate production (daily av., thousands of bbls.).....	6,719	6,721	6,689	6,322	4,751
Bituminous coal production (daily average, thousands of tons).....	1,450	1,473	1,418	1,306	1,745
Paperboard production (tons).....	261,128	259,402	255,794	237,563	167,269

## TRADE

Carloadings: manufactures, misc., and Lc.I. (daily av., thousands of cars).....	66	65	61	66	82
Carloadings: raw materials (daily av., thousands of cars).....	41	42	39	38	53
Department store sales (change from same week of preceding year).....	-1%	†+2%	+13%	-2%	+30%
Business failures (Dun and Bradstreet, number).....	238	264	200	277	22

## PRICES

Spot commodities, daily index (Moody's Dec. 31, 1931 = 100).....	409.5	413.7	413.6	422.5	311.9
Industrial raw materials, daily index (U. S. BLS, 1947-49 = 100).....	93.2	92.9	90.9	81.7	††73.2
Foodstuffs, daily index (U. S. BLS, 1947-49 = 100).....	89.3	90.5	90.7	97.6	††75.4
Print cloth (spot and nearby, yd.).....	19.0¢	19.0¢	19.2¢	19.6¢	17.5¢
Finished steel, index (U. S. BLS, 1947-49 = 100).....	144.7	144.7	144.6	140.9	††76.4
Scrap steel composite (Iron Age, ton).....	\$36.33	\$35.83	\$34.50	\$25.33	\$20.27
Copper (electrolytic, Connecticut Valley, E&MJ, lb.).....	33,000¢	33,000¢	30,000¢	29,956¢	14,045¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.).....	\$2.45	\$2.46	\$2.44	\$2.41	\$1.97
Cotton, daily price (middling, ten designated markets, lb.).....	34.19¢	34.20¢	34.10¢	34.14¢	30.56¢
Wool tops (Boston, lb.).....	\$2.10	\$2.10	\$2.02	#	\$1.51

## FINANCE

90 stocks, price index (Standard & Poor's).....	293.5	291.5	278.0	206.3	135.7
Medium grade corporate bond yield (Baa issues, Moody's).....	3.47%	3.46%	3.46%	3.61%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate).....	1½-1½%	1½-1½%	1½-1½%	2%	1-1½%

## BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks.....	57,394	57,639	57,981	54,789	††45,820
Total loans and investments, reporting member banks.....	84,859	85,359	85,481	79,151	††71,916
Commercial and agricultural loans, reporting member banks.....	22,096	22,054	22,237	22,556	††9,299
U. S. gov't guaranteed obligations held, reporting member banks.....	35,280	35,799	36,513	32,409	††49,879
Total federal reserve credit outstanding.....	24,873	25,262	25,739	25,815	23,883

## MONTHLY FIGURES OF THE WEEK

	Latest Month	Preceding Month	Year Ago	1946 Average
Housing starts (in thousands).....	88.0	91.0	66.4	55.9
Private expenditures for new construction (in millions).....	\$2,027	\$2,202	\$1,710	\$803
Public expenditures for new construction (in millions).....	\$734	\$783	\$734	\$197
Bank debits (in millions).....	\$163,378	\$186,317	\$154,281	††\$85,577
Average weekly earnings in manufacturing.....	\$73.97	\$74.30	\$70.92	\$43.82
Wholesale prices (U. S. BLS, 1947-49 = 100).....	110.2	109.5	110.9	78.7
Retail sales (seasonally adjusted, in millions).....	\$15,123	\$14,361	\$13,932	\$8,541

\* Preliminary, week ended February 12, 1955.  
† Revised.

†† Estimate.

= Insufficient trading to establish a price.

§ Date for "Latest Week" on each series on request.

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## GENERAL BUSINESS:

**A NEW ERA—AND ADDED PUNCH.** After two decades of labor division and growth, AFL and CIO agree to merge.....p. 25

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**BRICKBATS FLY, BUT MUSEUM'S SHOW GOES ON.** Good Design Exhibition in N. Y. raises usual storm .....p. 28

**THE WORKERS POLL THAT KICKED UP A FUSS.**

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### NEW ORLEANS:

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Sno-Cat transporting equipment and personnel of Hollywood movie company to location on top of Wasatch Mountains. Widely used by railways, power, light and other utilities, outdoor industries, ski resorts, municipalities, etc., the Sno-Cat takes men and equipment to remote spots in hours where other means might take days. Produced by Tucker Sno-Cat Corp., Medford, Ore.

## No snow too deep—No road too steep for stainless steel pontoons

This blizzard-blitzing SNO-CAT slides directly over the deepest snow on wide pontoon runners. Slides over mud and tundra, too. And even over out-cropping rock!

What sort of runner bottom can take such a beating? What sort of metal can defeat the corrosive attacks of snow, slush and ice, as well as resist wear and abrasion by frozen earth and stone? And

when extreme cold makes many metals brittle, which one remains tough and strong?

The answer is *stainless steel with INCO nickel in it.*

Use of nickel-bearing stainless steel on the bottom of the Sno-Cat's pontoons is just one more proof of the effectiveness of nickel as an alloying element. Nickel strengthens, toughens,

hardens and adds corrosion resistance to other metals.

If you have a problem in which corrosion, high or low temperatures, stresses or fatigue resistance are troublesome factors, let's talk it over.

Two minds are always better than one; we may be able to help you find out how well nickel or a nickel alloy may solve a troublesome problem for you...

Write for... "List A" of available publications.



*Nickel Alloys Perform Better, Longer*

**THE INTERNATIONAL NICKEL COMPANY, INC.** 67 Wall Street  
New York 5, N. Y.





**TELEPHONING FROM AUTOMOBILES, TRUCKS, BOATS** The mobile telephone resembles an ordinary telephone, except that it contains a "push-to-talk" button. Conversations may travel part way by radio and part way by telephone line. Bell telephone companies can supply either complete mobile service, or furnish and maintain equipment for private radio systems.

## More and More Telephones Are Going Traveling These Days

Bell System mobile telephone service—a big time and money saver—is growing rapidly.

This service is now available in 210 areas in the United States, including most cities of over 150,000 and many smaller places.

Traveling telephones are necessities to many lines of business having vehicles on the road and to professional people.

Often mobile service is the *only* way to reach quickly a moving car, truck or boat. And from a mobile

telephone you can talk with your own dispatcher's office or with any other telephone anywhere.

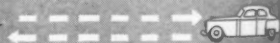
Mobile telephones cut labor and vehicle-operating costs for many types of business. Bell System customers receive these advantages without capital outlay, equipment obsolescence or maintenance problems.

This modern convenience is another example of how the telephone is being made useful to more and more people.

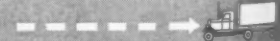
### THREE TYPES OF SERVICE



**GENERAL** Two-way telephone service between a mobile telephone and any other telephone.



**DISPATCHING** Special two-way dispatch service between a particular telephone at a customer's dispatching office and mobile units in his vehicles.



**SIGNALING** One-way, non-talking service to notify the driver of a particular vehicle to comply with prearranged instructions, such as calling the office from the nearest telephone.

**Bell Telephone System**



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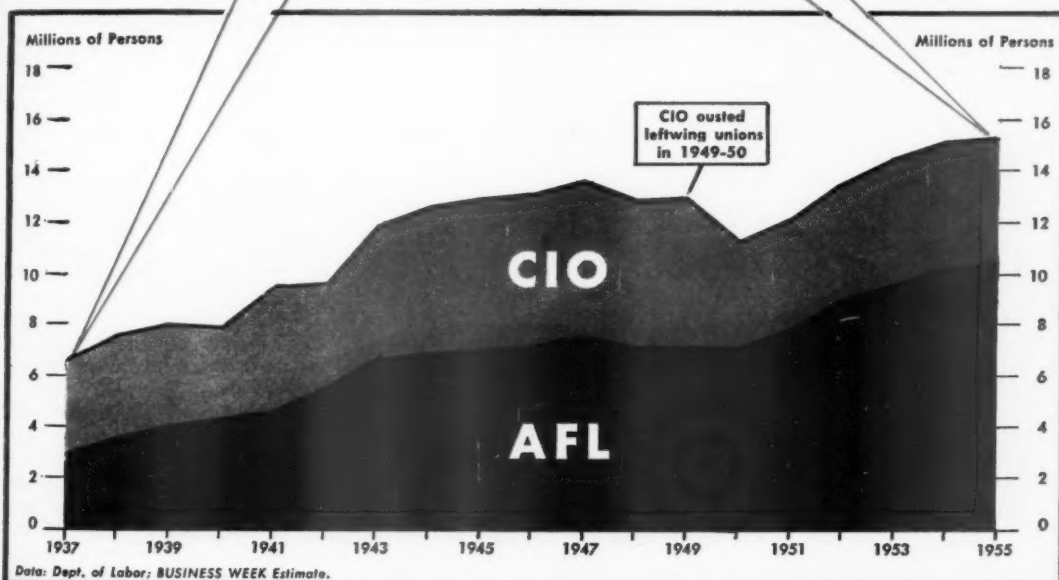
## After Two Decades of Labor Division – and Growth



**1935** John L. Lewis and AFL president William Green lost their smiles when Lewis led industrial unions out of AFL and, in 1937, set up CIO. Unions' total membership was...



**1955** AFL's George Meany and CIO's Walter Reuther are leading the federations back together—aggressive and stronger than ever before.



## A New Era—and Added Punch

To American labor and all who deal with unions, last week's merger agreement between AFL and CIO was electrifying news. It wasn't unexpected, but—like a comet that flares through the sky just when astronomers predict—it was no less exciting because of that.

The merger plan worked out in a series of meetings in Miami Beach ended a 20-year division in labor ranks. The split began when John L. Lewis led a walkout of industrial unions from AFL in 1935. Its end means the beginning of a new era.

What this new era will bring, in the long run, is still anybody's guess. However, there are already definite indications about immediate results. It's safe to expect:

**More political action by labor**, as the new federation—claiming to represent

15.3-million unionists and their families—throws consolidated power behind its legislative programs in Washington and state capitals.

**Increased organizing**, using pooled resources. Labor has long talked of intensified drives to organize the "great mass of unorganized workers." Now, it appears, the talk must be taken seriously. New organizing spirit and vigor is to be expected in Southern textiles, among white-collar and retail workers, in chemical and oil industries. Companies with independent unions, and those with non-union plants, will be AFL-CIO targets; those now dealing with leftwing unions, in particular, can expect to face concerted union drives.

**New bargaining pressures** may result from union claims of powerful backing from a "stronger and more effective union movement." But, from a practical standpoint, the merger has little more than psychological significance in this area. Since individual unions bargain on their own, once negotiators get down to work on contract terms the bargaining will be little different.

**Fewer jurisdictional fights** between AFL and CIO unions—but not a complete end to feuding. The merger agreement guarantees present bargaining relationships and union jurisdictions, and calls for "appropriate machinery" to enforce a no-raiding rule. But these provisions are, so far, more hopeful than binding. Even if enforcement machinery is set up, some major unions—the Brotherhood of Teamsters, for instance—may ignore it; they have refused to be covered up to now by the AFL-CIO no-raiding agreement of 1953.

• **Outside Reactions**—How do management and government feel about these immediate implications of merger, and the greater future potentialities of real labor unity?

So far their reactions to the announcement from Miami Beach have been mixed.

Labor Secy. James P. Mitchell hailed labor unity as "good for American industry, because it may help to prevent or eliminate jurisdictional problems." He minimized the threat of a single powerful labor body with more than 15-million members, commenting, "Those unions are united politically now, and what we will have will be just a loose confederation."

• **Employer Worries**—Employers generally feel that unity will be a blessing if it reduces or ends jurisdictional disputes and strikes. However, they are worried about the added strength it may give labor in organizing and bargaining, and in politics.

Henry G. Riter, III, president of the National Assn. of Manufacturers, expressed the position of many employers. Conceding the jurisdictional benefit, he warned: "Already unions

constitute a dangerous monopoly, an issue already being investigated in Washington, and the merger will mean that their monopoly will become even more potent."

Since this is not an isolated viewpoint, but one with substantial support, the merger may lead to renewed efforts by employers to bring unions under the restraints of federal antitrust laws, and to bar industrywide bargaining.

This could intensify the friction in the Cabinet between Commerce Secy. Sinclair Weeks, who wants antitrust curbs on labor, and Labor Secy. Mitchell, who is just as strongly opposed.

• **No Precedent**—These are some implications of merger. There will be others, both inside labor and in the relations between unions and governments at all levels, industry, and the public. Because of the greater strength of unions today than at the time AFL split apart in 1935 (chart, page 25), what happened during labor's pre-1935 unity is no guide to what to expect now.

## I. Uniting AFL and CIO

Just two weeks ago, large areas of disagreement seemed to stand in the way of quick AFL-CIO merger—in particular, CIO insistence on airtight "no-raiding" guarantees.

Despite the problems, the merger agreement came quickly, once committees of the two organizations got to work. When it came, it was no mere statement of intent to merge, but a complete, detailed blueprint—a carefully drafted document that puts AFL and CIO on record with a specific formula for amalgamation.

After signing it, one CIO official commented that the merger plan is now "past the point of no return." One from AFL remarked, "From a practical, working standpoint, you could say that the merger is now in effect."

• **Formalities**—Actually, of course, it isn't. There are still formalities to be complied with: CIO executive board approval on Feb. 24; the task of hammering out a new constitution; finally, ratification at separate conventions in the fall. There will be plenty of bickering, and some sniping—such as that by Michael Quill, president of the Transport Workers Union (CIO), at TWU's convention in New York this week.

Nevertheless, there no longer is any real question of the merger going through. Probably by the end of September, labor unity will be a fact.

• **Setup**—Basically, CIO industrial unions are returning to the AFL fold, to take their places alongside AFL craft unions. Chances are, the new organization will retain the name American Federation of Labor.

However, the new body will include a Council of Industrial Organizations into which present CIO unions will move, intact. In that way, the initial CIO won't be lost and—during the crucial first years—the present CIO will remain structurally about as it is, able to use a new threat of a walkout as a bludgeon for concessions.

Nobody will admit this, of course. CIO's leaders insist there's no thought of carrying a club into the new federation. Moreover, they say, the new Council will not be just a CIO pocket—the International Assn. of Machinists and International Ladies' Garment Workers' Union (both AFL) are already talking of joining it.

• **Top Men**—George Meany, president of AFL, will head the new federation, and William Schnitzler, AFL's secretary-treasurer, will hold the second top job.

From the start of serious merger negotiations, Walter Reuther, CIO president, made clear that he would support Meany. There's more to that than first meets the eye: The two top officers must sever active ties to affiliated internationals—something Reuther isn't willing to do at this time. He wants to stay as United Auto Workers president.

Reuther is likely to retain the presidency of the Council of Industrial Organizations, within the new federation, and James B. Carey, CIO secretary-treasurer, is expected to get that job in the Council.

The new federation will be governed between conventions (now planned at two-year intervals) by an executive committee of the two top officers and three vice-presidents each from the present AFL and CIO. The establishment of this committee is expected to strengthen Meany's hand by reducing the conservative influence within AFL. An executive council will be important in policy-making. It will have 27 members—17 vice-presidents from AFL and 10 from CIO.

• **Integrating**—Organization will be directed by a CIO man, with 175 organizers from CIO and 160 from AFL spearheading efforts. Industrial union organization will go on, as under CIO, in mass production industries. The unity agreement acknowledges that both craft unions, such as those in AFL, and industrial unions are "appropriate, equal and necessary as methods of trade union organization."

CIO's Political Action Committee and AFL's Labor's League for Political Education will be merged. So will AFL and CIO lobbies (BW—Feb. 5 '55, p. 120). If political action grows more effective, the new federation could become, in time, the dominant force in the Democratic Party.

State and local AFL and CIO com-

cils are given two years to merge, indicating that merger proponents are aware of job rivalries and sectional leadership conflicts.

Internationals in the same general jurisdiction will be encouraged to merge, but not forced to. This means two or more unions will still be competing for new members in unorganized plants in many industries.

• **Policies**—CIO stipulated that bars against racial discrimination, Communism, and racketeering should be covered by enforceable provisions in the new constitution. The assurances have been given. Realistically, though, nobody expects an immediate cleanup of corrupt union practices.

All in all, it appears likely that AFL will get a large injection of the spirit and fervor of the industrial union movement and its younger leadership. Many, possibly more attuned to CIO views than most in AFL, will be strengthened. Reuther and other CIO officials—including David J. McDonald of the United Steelworkers—will be able to swing considerable weight, even though they won't hold top offices.

## II. What Next?

Even before the merger becomes an actuality, next steps are being considered. Starting with 15.3-million members, the coming federation can be expected to grow quickly.

Already, independent unions—such as the railroad brotherhoods—are considering the pros and cons of joining up. W. P. Kennedy, president of the 215,000-member Brotherhood of Railroad Trainmen, said candidly a week ago that a bid to affiliate "might be looked upon most favorably." Officers of other independents have expressed a similar interest.

For many, it's a defensive interest. With AFL and CIO merged, small independents will be even more isolated. In the oil industry, for instance, many independents may quickly review their position.

• **John L.**—What about John L. Lewis and the United Mine Workers? Talk of labor unity always comes down to that question. There's plenty of opposition to Lewis from former associates in AFL and in CIO, due both to lingering animosity and to continuing fears. If an invitation to affiliate is extended to UMW, it will have this proviso—Lewis is not to get a leadership role.

• **Dissenters**—There's speculation about dissent within AFL, too. A number of key building trades unions are lukewarm toward a merger. If the constitution doesn't give what they consider adequate safeguards for craft unionists, there might be a serious proposal for building-trades withdrawal from AFL.



TALGO TRAIN, now used in Spain, is lighter, faster, lower. U.S. railroads want this new type, but some want its speed, some the cheapness, some luxury. So . . .

# Each Road Wants Its Own

Six leading U.S. railroads announced this week that each will take its own separate route toward the train of the future.

All six are aiming for something faster, lighter, and cheaper, along the lines of the Talgo train in the picture above. Sooner or later, each will probably put some such train into service for the quick short-haul or medium-haul routes. But in designing the new-type train, it will be each road for itself; each will seek a design to suit its own special needs.

That leaves the Rock Island RR still out in front in bringing a Talgo train into U.S. service. ACF Industries, Inc., which built the Spanish model, is now constructing a new version of the Talgo for the Rock Island, and expects to have it ready for delivery, on schedule, in December. The Talgo type weighs only one-third as much per passenger seat as a standard coach; and the low-slung cars hug the rails better.

• **Agreeing to Disagree**—This week's announcement came from the presidents of the six railroads as a progress report on their study of possible standardization of new rail equipment. The presidents spoke for the Baltimore & Ohio; Chesapeake & Ohio; New York Central; New York, New Haven & Hartford; Pennsylvania; and the Atchison, Topeka & Santa Fe.

The roads failed to agree on a single design for the new-type trains, and individually they are still a bit vague on the exact design and specifications

to suit the needs of each. Roughly, though, here is what they think they will want for Talgo-type service:

Baltimore & Ohio, and Chesapeake & Ohio would like cheaper, improved cars for short hauls, but aren't ready to talk about orders. These two roads aren't really in the same class with the others as passenger carriers.

New York Central and New Haven want something sensational in appearance—possibly to back up the publicity from their new managements. Speed, they say, is their big need. But you can go just so fast on rails; in most of the East, 80 mi. per hr. is about tops.

The Pennsylvania isn't much interested in speed, but it wants the cheapness in operation that lighter cars will give. Pennsy people feel their crack Congressional could run the wheels off a Talgo-type, with speed limits off.

Santa Fe is asking for luxury, even in coaches—and next to that, sturdy construction, because the road makes long hauls across rugged country in all kinds of weather. It wants to plug comfort to get passengers.

• **Orders**—The six roads are even vaguer about when they expect to submit orders. Except for ACF Industries, manufacturers say they haven't yet received any orders for startlingly different equipment. One hopes for an order for some new type of train within a month at the latest; but it doesn't have plant space to start scheduling even its standard cars before year-end.





**MUSEUM** of Modern Art director, Rene d'Harnoncourt, surveys museum's fifth Good Design show of 100 home furnishing items. Program is put on for Merchandise Mart, but museum controls choice. Function, price, aesthetics counted in selection.



**WHY THE EAMES** chair was picked. Molded plastic lets homeowner in on new processes; form is in character with way people want to live.



**THREE-LEGGED** chair by Katzev, Littell, and Kelley. "It gets purpose over fast-formal, not uncomfortable. Magnificently simple T-shaped structure."

## Brickbats

The Museum of Modern Art in New York celebrated the fifth birthday of its Good Design Exhibition last week amid the usual storm of controversy. This year, however, the storm reached near-hurricane strength, because Edward Kaufmann, Jr.—director of the program since its start—had just resigned; he felt he could better do the work he wants to do elsewhere.

The program organized by the museum for its sponsor, the Merchandise Mart in Chicago, sounds harmless enough. But it represents quite different things to different people.

To some, it is a praiseworthy and successful effort to educate designers.

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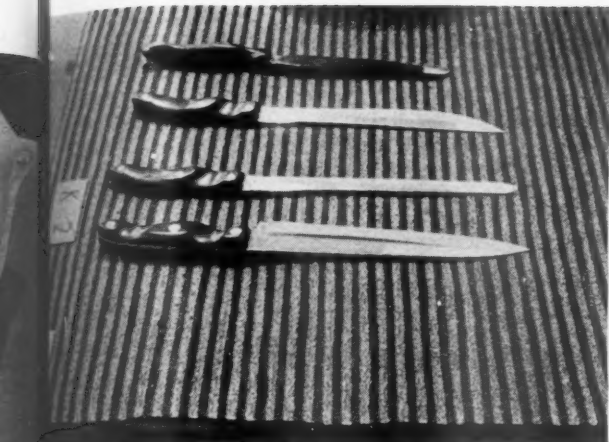
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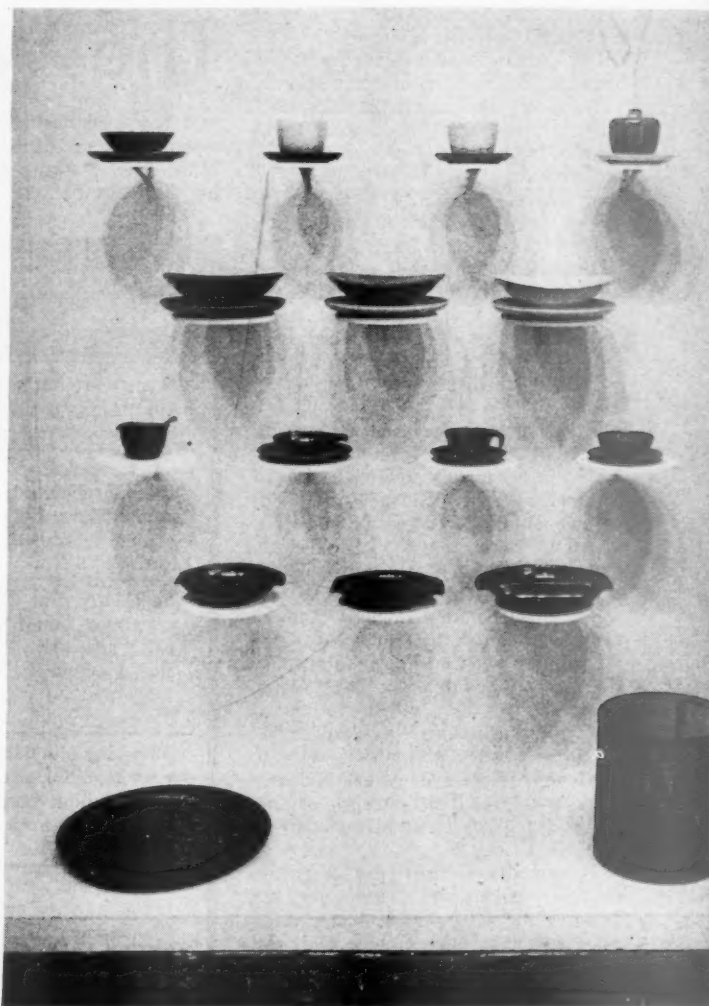




CUTCO stainless steel cutlery was approved on basis of handles. Problem here was: What does the hand do? Designer shaped the handle to fit the hand. Prices on larger knives range from around \$6 to \$10.



DINING TABLE by Darrell Landrum represents a question of "fairly high-fallutin' aesthetics. It isn't too functional; legs tend to get in the way. But diagonal struts, similar to high-tension tower construction, are highly ingenious."



PLASTIC dinnerware, by George Nelson Associates (top), and Russell Wright. Wright ware was one of first molded plastic sets to have a flowing line, instead of the usual crisp look. Coarse grind of plastic gives granular effect.

## Fly, but Museum's Show Goes On

manufacturers, and most of all consumers, on what constitutes good design in the home furnishings field. W. D. DePree, president of Herman Miller Furniture Co., for one, believes the show has stimulated manufacturers to better design.

The critics take exception. By adhering to a narrow concept of what good design is, they say, the museum has alienated the public from good design. "By forcing its narrow dogmas," says T. H. Robsjohn-Gibbings, designer for Widdicomb Furniture Co., "the museum has driven young designers into striving only to win approval of the narrow theory."

• **The Show**—Twice a year, before the Chicago home furnishings markets in January and June, a museum jury—consisting of a businessman, a designer, and the museum program director—chooses from items submitted by manufacturers and designers those items that meet its design standards. The Merchandise Mart puts them on display at each market. Once a year, they travel to their home ground, the museum itself.

This year's show (pictures) consisted of 100 items of home furnishings, culled from Good Design winners of previous years.

• **Object**—According to Kaufmann, the

exhibit is an attempt to pick out objects of aesthetic excellence, to bring them together in one place where they can be seen to their best advantage. Kaufmann naturally has a criterion, which can be summed up in a word he himself uses—"suitability." The selections should be suitable to the user in terms of function, price, and "tone."

In practice, application of this criterion has developed a characteristic tone for the selections.

The over-all impression is one of simple, functional design, stark ornamentation, lightness in actual weight and in "feel."

• **Argument**—Says interior decorator

William Pahlmann, "Who are they to set themselves up as arbiters?"

"What the museum goes for is faddishness," another big designer believes. "The shows are heaven for decorators, but most of these goods have to be handled by the average consumer." The show has had enormous influence, his company believes, and it represents the top choice in a narrow field. But as a taste-educator, it cuts no ice.

To some extent, the big home furnishings retailers echo these criticisms. "They seem to show the same things every year," one store official says. Others add that the juries go so strongly for austerity that they forget to be human.

The larger retailers have another complaint. Availability is one prerequisite for winning the Good Design award. Yet both W. & J. Sloane and Bloomingdale Bros. feel that for practical purposes the items aren't available in the quantity that such stores need. You carry one line, they say, then find you can't carry a complementary line because your competitors have it.

Many home furnishings stores doubt that the Good Design label—which manufacturers may attach to any of their winning products—has any impact on sales. "It registers on our customers," an Abraham & Straus executive says, "and gives them a feeling of pride in the store." But few believe that the tag sells anyone.

**Proponents**—Against the dissenters, though, you can find a large group that believes the program has had a lot of good effect. These include the Merchandise Mart itself. Kaufmann cites the growing number of manufacturers who order and pay for the Good Design labels as evidence that the tag is effective. The museum offers these statistics: In its first show, there were 400 entries; in 1955, there were over 5,000.

Edward J. Wormley, designer for Dunbar Furniture Corp., George Nelson, and Russell Wright are among those who testify that the label does sell. John Gerald, of John Gerald Associates, designer (rugs and furniture), decorator, and consultant, says that the rugs he has designed for Waite that have carried the label have sold well from the start. Wormley reports that thanks to the Good Design tag he could sell items "a little more austere" than he could have sold without it.

Good Design has "done a superb job of making Mrs. America aware of design," Gerald says. The show's great contribution, he believes, is that it made manufacturers realize they could offer good design at a price.

In spite of these deadlocked opinions, however, it looks as though the running battle will go on. The museum has a contract with Merchandise Mart to put on more shows.

# The Workers Poll That Kicked

A few weeks ago, interviewers went among General Motors employees at Flint, Mich., asking questions including the examples below. Last week

Walter Reuther, president of the CIO and the United Auto Workers, kicked up a fuss about the queries—a fuss that stirred the opinion research busi-

## Here are some of the questions Opinion Research Corp. asked auto workers

If you were out of work, how many dollars per week could you collect in unemployment compensation? .....

In your opinion, should unemployment compensation pay just enough to take care of the necessities of life, or should it provide something for the comforts, too?

- ☐ Necessities  
☐ Something for Comforts  
☐ No Opinion

Some say that if unemployment compensation benefits are increased very much too many people would rather stay unemployed than get out and look for work. Do you agree with that, or not?

- ☐ Agree  
☐ Disagree  
☐ Don't Know

Some say bigger benefits would be little help to employees with seniority, and would mainly benefit those who drift in and out of work. Do you agree with that, or not?

- ☐ Agree  
☐ Disagree  
☐ Don't Know

Do you think most companies have been trying hard to provide steady jobs for their employees, or haven't they?

- ☐ Yes, Most Trying Hard  
☐ No  
☐ Don't Know

Can you tell me what the UAW-CIO's guaranteed annual wage plan provides, or aren't you familiar with it? .....

One union has proposed a plan where the company guarantees employees' wages 52 weeks after a layoff. If a worker is laid off, the company has to pay him enough so that with unemployment compensation he can keep the same living standard he had while working. Do you think this plan would be practical for most manufacturing companies, or not?

- ☐ Yes, Practical  
☐ No  
☐ Don't Know

Some people say that the best solution for layoffs is to have the company meet its competition and sell more goods. Others say the best solution for the problem is the guaranteed annual wage. Which would you have more confidence in?

- ☐ Meet Competition  
☐ Guaranteed Annual Wage  
☐ Don't Know

Some say that if a company put in a guaranteed annual wage which would pay liberal benefits when employees are laid off, the worker with the most seniority should get the chance to be laid off first. Do you agree with that, or not?

- ☐ Agree  
☐ Disagree  
☐ No Opinion

# Kicked Up a Fuss

ness more than anything since the 1948 Presidential polls went sour.

Reuther sent a letter to some 400 opinion researchers, mostly members of the American Assn. for Public Opinion Research. He attached a copy of the Flint questionnaire and asked the pollsters to agree with him that "certain questions . . . are biased or designed to elicit answers that could be interpreted as damaging to the union. . . ."

Said Reuther: "I am confident that you and your responsible colleagues in the profession, to whom I am also writing, will want to examine the enclosed schedule and to take such action as may seem to you appropriate to maintain the integrity of, and public respect for, opinion surveys generally."

• **Sensitive**—Reuther does not call into question the opinion survey technique "properly and honestly applied." But he does question the techniques used in this particular study.

Reuther's move shows to what extent opinion polling has assumed a bigger role in public and private affairs. It implies that the profession has reached a point where its methods are under constant scrutiny.

How Reuther got hold of a copy of the questionnaire is not clear—the 65-item forms were supposedly retained by the interviewers. But it is quite clear why Reuther and the UAW are interested. Around Apr. 1, the UAW will sit down at the bargaining table with General Motors, and the main point on the agenda is expected to be a guaranteed annual wage.

The poll is presumed to have been made for GM by Opinion Research Corp. of Princeton, N. J., to guide GM in its policy development. But it might provide ammunition for use at the bargaining table. That seems to be why the union is so sensitive. Reuther obviously wants to discredit the survey beforehand in case GM produces it.

• **Raises Questions**—It's nothing new for unions to take a poke at pollsters. As one well-known opinion researcher put it this week: "By now I'm allergic to their complaints."

Opinion Research Corp., a specialist in examining employees' attitudes toward employers, has been the target of union brickbats before this, particularly for its studies of opinion about the Taft-Hartley Act.

However, no one in the polling business remembers anything quite like this—where a critic has appealed over the pollster's head, as it were, to a jury of other pollsters. This procedure raises many questions:

• Will the professionals back up

UAW's complaint or their fellow poll-taker?

• How far can you go in prejudging a poll when no one knows how the data will be evaluated?

• Is there any reason why a person cannot take a poll on any subject he wants, and ask any question he wants? Is Reuther trying to make a public issue out of a private fight? Where is the moral issue here?

• **Reaction**—Opinion research people were reluctant this week to talk about the work of a fellow practitioner. Three who talked, off the record, to a BUSINESS WEEK reporter were, however, critical of the questionnaire to some degree. The mildest critic wondered why all the fuss; the others used adjectives like "inadequate."

Specifically, they said that some questions:

• Require too much technical knowledge on the part of the respondent, such as the one (table, left) about the practicality of GAW for manufacturing companies.

• Fail to give true alternatives.

• Don't provide a basis for judgment.

The next-to-the-last question in the

table shown is an example. One researcher says it "puts up alternatives that aren't alternatives at all." Another says: "A worker might favor both the benefits posed as alternatives. If it is impractical to have both, the question should make this clear." He wonders how the answers to such questions can be interpreted so as to make sense.

• **Keeping It Impersonal**—Dr. Claude Robinson, director of Opinion Research, declined to comment on the report that his group made the controversial study.

"Our relationship to our clients," he said, "is like that of a doctor or a lawyer. We don't deny or affirm."

He said that he had seen the document sent around by Reuther and that "I can't see the bias." The use of the "some people say" technique is a legitimate one, he said, when you are trying to find people's response to propaganda. In general, he said, "you can't use a word that hasn't got some kind of emotional overtones," and what seems like oversimplification occurs when you "impose categories on reality."

• **Airing**—The whole question of the Flint survey may soon get an airing. Several research pollsters have told UAW that they are going to ask the American Assn. of Public Opinion Research to put the survey on the agenda of the next annual convention next May for thorough discussion.

## Britain Takes Atom Plunge

Britain this week announced a 10-year atomic power plan that dwarfs the U.S.'s own five-year plan (BW—Feb. 12'55,p100) in money invested and electric energy to be produced.

The plan calls for 12 nuclear power stations, of which the first eight probably would be gas-cooled, graphite-moderated reactor plants like the experimental one being completed at Calder Hall, in northern England. By committing themselves to one type of reactor (at the same time allowing for improvements in it), the British are able to set a timetable for an outlay of some \$840-million by 1965 for 1.5-million to 2-million kw. of generating capacity.

In contrast, the Atomic Energy Commission's five-year program for the U.S. calls—at the moment—for about \$200-million investment to gain only about 96,000 kw.

• **Different Approaches**—Britain and the U.S. obviously are tackling atomic power two different ways.

Britain, anticipating a need for 3½ times as much electricity 20 years from now, is keeping in mind a coal shortage. Coal production has been expanded since the war, but only by a mighty

effort. A leveling-off in demand for coal for power stations, says the British government report, "could come none too soon."

Britain has also found a type of reactor that seems commercially acceptable, and it is willing to put heavy investment into this reactor for the sake of starting a program. The Calder Hall prototype is scheduled to start producing within a year, with 50,000 kw. capacity. Its cost will run between \$42-million and \$56-million.

The U.S., on the other hand, isn't rushed by shortages of fossil fuels. It is experimenting with various types of reactor, to determine which will eventually be the most efficient. The only commercial-scale plant in the AEC program is the pressurized water reactor of Duquesne Light Co., with 60,000-kw. capacity. This unit costs \$84-million, will be finished by 1958.

Of course, over the next 10 years—the period of the British plan—some private plants are pretty sure to be built in the U.S. The Consolidated Edison Co. project (BW—Feb. 12'55,p100) is one; others with total capacity of perhaps 400,000 kw. may be started this year.

• **Essentials**—In a nutshell, Britain is



making do with conventional materials (no zirconium or other exotic materials for the present) and with more or less conventional engineering principles. The U. S. is going all-out on developing whole new industries, if necessary, to get the most in ultimate efficiency from atom plants.

People familiar with atomic development said this week that the U. S. is now far ahead on reactor technology, with our pressurized water reactor developed as highly as the British gas-cooled reactor (the U. S. has had two gas-cooled reactors, at Oak Ridge and Brookhaven, L. I.). We have gone further, too, in faster-neutron reactors, in reactors using liquid metal coolants, in higher operating temperatures (the British plan to use carbon dioxide coolants at around 650F to 850F, while our metal coolants would permit the much greater efficiency of 1,500F and above).

• **London's Timetable**—According to the British report, this is how the new reactors are scheduled:

**1957**—Start two stations, each with two gas-cooled reactors of the Calder Hall type, for operation in 1960-61. Output would be from 50,000 to 100,000 kw. for each reactor; cost, \$84-million to \$98-million altogether.

**1958-59**—Start two more stations, each with a pair of improved reactors of the same type, for operation by 1963. Output would be in the same range, cost a bit higher.

**1960**—Start four more stations, perhaps gas-cooled with one reactor to each station; start four more, probably liquid-cooled, in 1961-62. These would all be operating by 1965, putting out "well over" 1-million kw. They would cost \$350-million.

• **Development, Too**—Meanwhile, Britain would also be working on other reactor types.

The first reactors will be converters that use natural uranium or slightly enriched uranium, produce heat, and also produce plutonium that can be extracted chemically from the used fuel. A value of "thousands of pounds sterling for a kilogram of plutonium" has been reckoned in fixing net cost of electricity from the first commercial nuclear stations at 7 mills per kw.

The British will also study liquid-cooled reactors with a higher efficiency than the gas-cooled type.

Development after 1965 will focus on putting thorium as well as plutonium to use as fuel; on homogenous and fast breeder reactors. Plans are already being made for a breeder reactor (which produces more fissionable fuel than it consumes) at Dounreay in Caithness, Scotland, but a commercial prototype won't be tested "until 1965 at the earliest, and production plants could not be expected to be in operation until the 1970s."

## Democrats Eye the AEC

Atom probe by Congress committee delves into effect of commission acts on weapons program and atoms for industry; businessmen put in some licks, too.

The Democratic-controlled Congressional Joint Atomic Energy Committee is taking a searching look at what has been done with the atom in the last year and a half.

As far as the law goes, such an inquiry is routine. This one, though, is far from routine. With the probing committee dominated by an opposing party, politics play a large part.

The controversy reaches wherever the government has a hand in the atom business. It extends to:

- Effects of Atomic Energy Commission actions on national security.

- So-called "one-man rule" by AEC Chmn. Lewis Strauss.

- The program for private industrial use of the atom.

- **United**—On the first two points, the dissension goes right into AEC itself. But on the plans for introducing the atom to U. S. industry, the three warring commissioners are agreed. They have presented to the Joint Committee their program for industrial use of atomic products, for "renting" of nuclear fuels, for private access to atomic technology.

- **Weapons**—The old Supreme Court chamber of the Capitol looked like a courtroom again as the Joint Committee got going.

This is the first time the Democrats have had a go at AEC since Eisenhower appointees took over, and their criticism is biting. They backed the charges of Truman holdover Thomas E. Murray, only Democrat on AEC, that Dixon-Yates has taken up too much AEC time. His implication: Necessary decisions on future weapons production are being pushed aside. Once he couldn't attend a meeting with AEC advisers to discuss weapons data, he said, and this incident alone set the bomb program back two months.

Strauss claims A-bomb and H-bomb output is higher than ever; Murray retorts that that's true only because of decisions made several years ago.

- **"One-Man Rule"**—Dixon-Yates has a part, too, in revival of the "one-man rule" charges against Strauss. In the eyes of the Democrats, he has not only mishandled this contract, but has ramrodded it down the throat of Congress.

The power of the AEC chairman as compared to the other four members got a thorough airing last year. Democrats got him designated in the new atom law as "chief spokesman"—not

"principal officer," as the Republicans asked.

Since then, AEC make-up has changed drastically. Only three of the five are filled. Strauss and Murray are at opposite poles, with the third man, Republican Willard Frank Libby maintaining studied neutrality. The nomination of independent John von Neumann is in Congress. So there is virtual stalemate on controversial issues.

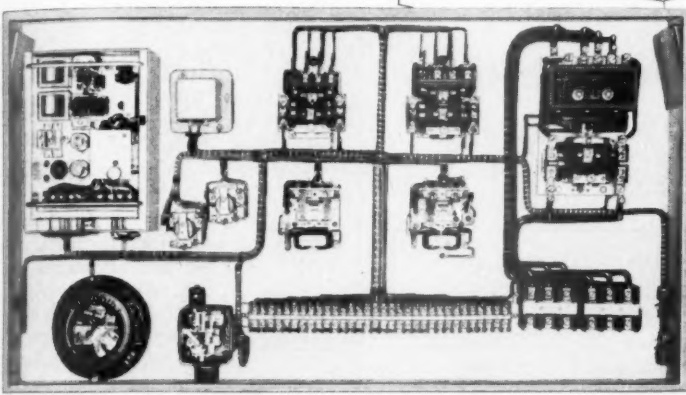
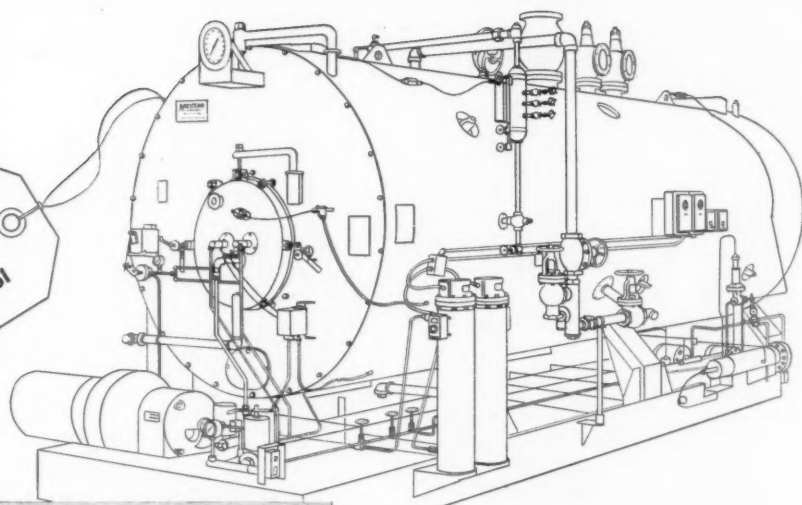
- **Industrial Atoms**—Even though this AEC stalemate has yielded to unity on atoms for industry, the Democrats don't like a lot of this program. Some Republicans, such as Rep. W. Sterling Cole (R.-N.Y.), join in criticizing AEC for not turning loose more power reactor technology. They think AEC is going too slow, and want a simple transition to a licensing system under which a businessman can get and keep more information.

Some leading industrial figures also think AEC isn't being as liberal as the law allows. Pres. Walker L. Cisl of Detroit Edison Co., head of a multi-million-dollar group looking for investment in atomic enterprise, warns that financial incentives offered by AEC won't work—AEC is giving too little, making that too hard to get. He wants AEC to guarantee a higher price for raw bomb materials made in private plants, so businessmen can show something concrete when they seek financial backing.

James G. Beckerley, former AEC declassification chief, now consultant to a private company, wants AEC to turn loose everything known about reactors except what relates exclusively to making bombs. The National Assn. of Manufacturers says the government's right to recapture inventions patented by those not working directly for AEC will stymie peacetime development and work a hardship on small firms.

The businessmen's stand will likely bring some changes in the program. AEC still has to tell what it will require in reports from business licensees. As the program stands, businessmen must sign a contract with AEC to get restricted information or rent nuclear fuels; and in this way AEC can keep a check on them. Businessmen don't like the extent of the check AEC wants; they don't like the power AEC has to determine what knowhow belongs to a businessman, what must be made available to competitors.



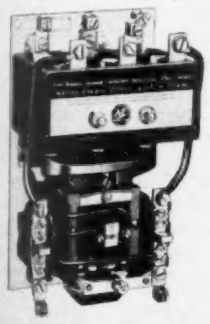


Close-up of automatic control panel used with Amesteam generator. Control panel, equipped with Allen-Bradley quality controls, is factory assembled and tested prior to shipment by Ames Iron Works, Oswego, N. Y. Complete "user" satisfaction is thus assured.

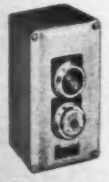
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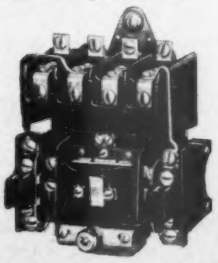
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## BUSINESS BRIEFS

Gross national product spurted in fourth-quarter 1954, hitting an annual rate of \$362-billion, the Commerce Dept. says. "That's \$6.5-billion higher than the third-quarter rate, \$1.5-billion above fourth-quarter 1953. The spurt carried the figures for the whole year to \$357-billion, still 2% below 1953.

Minnesota's tax on taconite and iron ore will not be boosted, if the legislature follows the advice of its 16-man committee on iron ore taxes (BW-Sep.11'54,p94). Gov. O. L. Freeman had asked for limited increases.

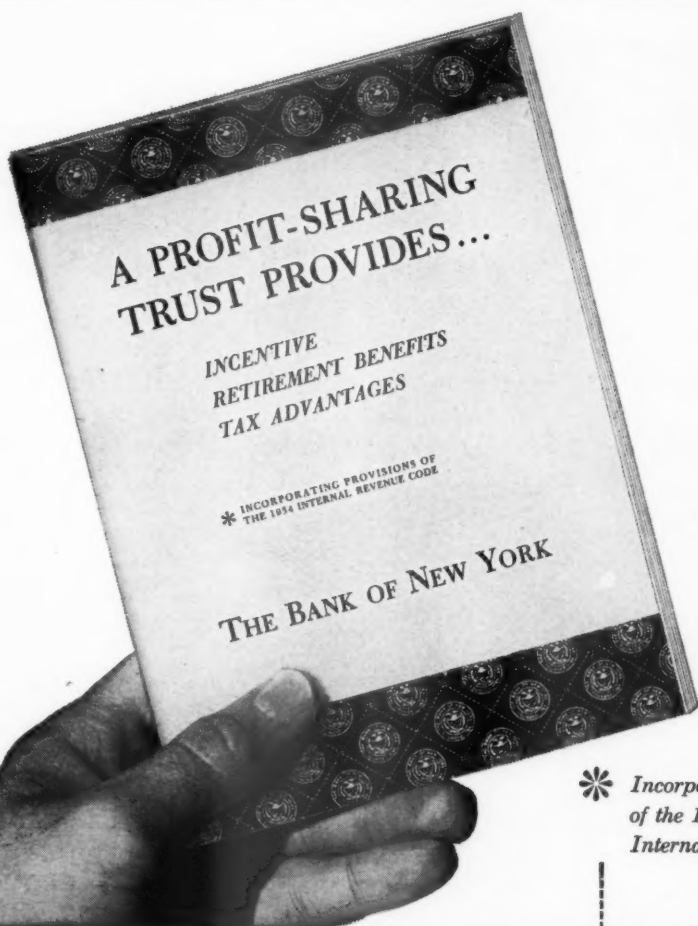
The half-billion sales club has a new member. Federated Department Stores, Inc., says it just made the grade with \$500,556,058 sales for the 52 weeks ended Jan. 31, a rise of 4.5% over the previous year. Federated claims to be the second largest department store chain, topped only by Allied Stores Corp.

Ohio's axle-mile truck tax would be repealed by a bill just introduced in the legislature. The bill substitutes a gasoline tax for trucks, which it is claimed would yield \$14-million a year. This would be \$3-million more than the yield of the axle-mile tax, which drove 13 trucking firms to leave Ohio, and caused a breakdown of reciprocity agreements with other states.

Bankers Trust Co. affianced: The nation's ninth largest commercial bank is planning to merge with the Public National Bank & Trust Co. If the deal goes through, Bankers Trust's \$2-billion-plus deposits and Public National's \$500-million-plus will put the combined institution into eighth place nationally, and sixth in New York City. Merger terms are 1½ share of Bankers Trust stock for each share of Public National.

New victory for the girls: Feminine drivers under 25 have just been granted a sizable cut in auto liability insurance rates. Their male opposite numbers remain at peak rates. Main reason: Young women are less likely to be exposed to the perils of night driving uncensored by parents.

An ICC examiner says the piggy-back rates charged by six Eastern railroads are "fair." Trucking interests and other railroads had challenged the rates. The dispute—involving the B&O, Erie, Lackawanna, Nickel Plate, Pennsylvania, and Wabash—now goes to the commission as a whole for decision.



\* Incorporating provisions  
of the 1954  
Internal Revenue Code

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*The booklet illustrated above points out specific advantages available through profit-sharing trusts.*

*Particular reference is made to the possibilities for savings and investment before the impact of taxes under such plans.*

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But this story isn't about physical restoration. Liberty Mutual's rehabilitation techniques go far beyond that. The biggest problem was to find a new life and new courage for Harry. To go back to truck driving was out of the question.

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# WASHINGTON OUTLOOK

WASHINGTON  
BUREAU  
FEB. 19, 1955

A BUSINESS WEEK

SERVICE

Washington's estimate of Formosa—after two weeks.

A major war—even serious fighting—is unlikely. The Chinese Reds just don't have the firepower or the industrial backup to risk a war. Almost all their supplies come from the Soviet Union.

A cease-fire is unlikely. That means we would fight back if the Reds attack Quemoy and Matsu. Militarily, those islands in conflict are part of the whole Formosa area. Moreover one-third of Chiang's forces are on the two islands; they would be protected if fighting started.

Some exchange of shots can be expected. But in these days and times, Washington won't regard this as war.

Pres. Eisenhower will be supported by all sides here. The so-called pro-Chiang wing will stay stuck. The feeling is there's little chance the Reds will give the U. S. a chance to trade Quemoy and Matsu for a settlement—that is, give up Chiang's claim to China in turn for a truce.

In Congress Eisenhower's program is beginning to move.

There has been a lot of delay, normal at the start of any session when party control changes. Just as normally, the Republican Party's Lincoln Day hiatus set back legislation. All this is by the board now. The tempo is quickening:

The tariff fight is on, and Eisenhower is winning. There are enough Democrats and pro-Eisenhower Republicans to pretty much assure a three-year extension of the Hull Act, plus new authority to cut tariffs.

Taxes are next. A bill extending the 52% rate on corporations and continuing some Korea-born excises will be ready for a vote before the Apr. 30 deadline. No serious effort will be made to give further tax relief.

The highway program is being taken over by Democrats. White House delay in getting Eisenhower's program to Congress prompted Sen. Albert Gore, who will head up the committee handling roads, to begin consideration of his own bill. It is a simple measure increasing federal funds \$1.6-billion a year. Hearings start Monday. Eisenhower's program is expected next week.

On schools: The Administration scheme for a federal market for local bond issues is getting pro forma consideration by the Senate Labor Committee. But Democrats will probably push an alternate plan for \$500-million a year in matching-fund benefits.

A four-year extension of the draft is sailing through. But there is trouble ahead for the Administration's universal training plan. This would put 17- to 18½-year-olds into uniform for six months and then into a ready reserve. Congress just isn't buying universal military training, no matter what it is called.

Rubber disposal: Sale of the government plants is now sure. A program

# WASHINGTON OUTLOOK (Continued)

WASHINGTON  
BUREAU  
FEB. 19, 1955

has been before Congress for almost a month with only insignificant opposition. Deadline for a Congressional veto is Mar. 25.

**Renegotiation:** No effort is being made to revive the government's power to review defense contracts and recapture excessive profits. The law expired Jan. 1. Only contracts let before then are still under regulation.

**Organized labor is getting behind a minimum wage law** that would go higher than Eisenhower's recommended 90¢ an hour (page 168). The Senate Labor Committee will recommend \$1 an hour or more, and the House Labor Committee, stacked with seven new pro-labor Democrats, will go along. House Chmn. Graham Barden, a conservative, is outnumbered. He can delay a vote on labor matters, but that is about all.

**Restoration of high, rigid farm price supports** is up again. The Democrats hope only to make a record, save the issue for the 1956 elections.

**Pressure is mounting to dump farm surpluses.** Cotton Sen. James Eastland is starting hearings on Feb. 25. He'll prod the government to get rid of \$1-billion worth of farm products. State Dept. will object.

**Democrats are giving up on efforts to stop Dixon-Yates,** the project for private development of electricity in the TVA area. A fight will be made on providing money to buy the power, but it will fail.

**Discontent among rightwing Republicans can be written off—short term.** There is hardly a chance of organizing a splinter group so long as Pres. Eisenhower is top dog. He is, and he will control the party at least through 1956.

**Dissident Republicans need Eisenhower in order to win.** The need is summed up in the case of Sen. Everett Dirksen of Illinois. He steered a delicate middle course at the Chicago Lincoln Day display of third-party threats from the old Taft men and ultra-conservatives. He's in trouble and will have to have support from all sides in 1956.

Some big political money may be lost from long-time contributors even in 1956. But Eisenhower people expect as much more "independent" money will be available because of the split.

**The dissident group is looking beyond Eisenhower.** He is constitutionally limited to two terms. The "pro-America" group will try to recapture the GOP for 1960, as similar forces unsuccessfully tried after Wendell Willkie in 1940 and later after Thomas E. Dewey.

**A business forecast for 1955 is being made by the Congressional Joint Committee on the Economic Report.** The Democratic majority is writing sharp language attacking the Administration's cheerful outlook. Democrats won't predict a downturn, but they will worry about the \$380-billion gross national product they say the Administration's figures indicate for the year.

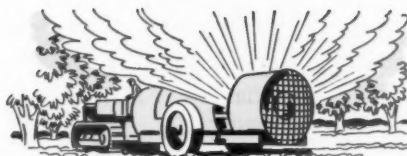
**That's not high enough to soak up 1-million new workers coming into the labor force in 1955,** the Democrats claim.

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**fmc**

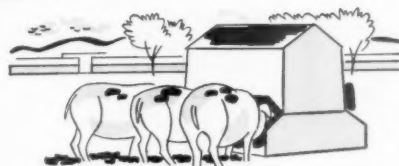
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# Blue Ribbon Farming



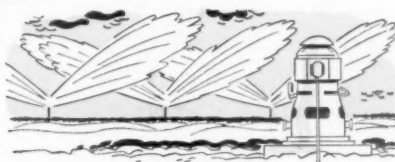
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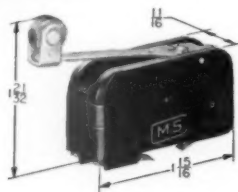
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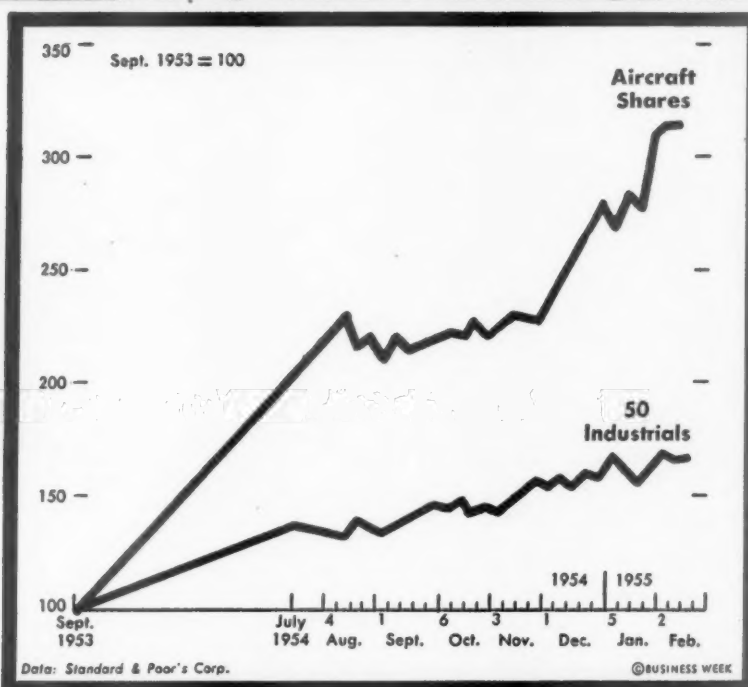


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"How  
The  
BUSINESS



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How high will they go?



## How some of the big ones are doing

	Best War Year	1950	1951	1952	1953	1954
Millions of Dollars						
<b>Boeing Airplane Co.</b>						
Sales	\$214.0 (1945)	\$307.3	\$337.3	\$739.0	\$918.2	x—\$771.5
Income Taxes	16.6	13.4	12.7	35.7	38.5	29.7
Net Income	6.5	10.8	7.1	14.1	20.3	27.2
<b>Douglas Aircraft Co., Inc.</b>						
Sales	\$180.9 (1941)	\$129.9	\$225.2	\$522.6	\$874.5	xx—\$915.2
Income Taxes	10.0	5.4	9.6	17.1	31.9	....
Net Income	18.2	7.2	6.9	10.8	18.6	xx—36.2
<b>Lockheed Aircraft Corp.</b>						
Sales	\$144.7 (1941)	\$173.3	\$237.2	\$438.1	\$820.5	x—\$581.6
Income Taxes	20.0	7.9	4.0	8.4	32.9	18.0
Net Income	6.6	7.2	5.8	9.1	15.5	17.1
<b>United Aircraft Corp.</b>						
Sales	\$519.4 (1942)	\$269.6	\$417.5	\$688.1	\$817.9	x—\$489.2
Income Taxes	41.5	15.3	18.0	33.6	48.5	23.8
Net Income	17.1	13.2	14.3	17.8	21.2	18.8

x — For the nine months ended Sept. 30, 1954.  
xx — preliminary figure

©BUSINESS WEEK

## No Ceiling in Sight—Yet

Each week that the bull market goes on, aircraft manufacturing shares continue to climb. And the question that pops up in Wall Street boardrooms with every new thrust of strength is:

"How high can they go?"

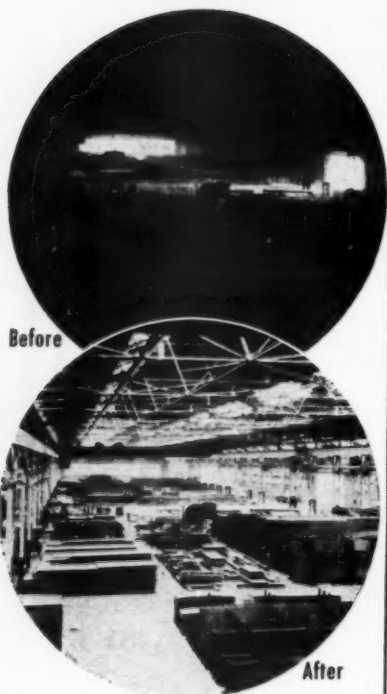
The chart above shows how high

they've gone. Since September, 1953, when the current rise started, Standard & Poor's index of aircraft manufacturing shares has skyrocketed 218% to a record high. By contrast, the S&P daily index of 50 industrials has advanced only 69% in the same period,

even though it, too, set a new record last week.

• **Speculation**—Obviously, the rocketing of most aircraft issues isn't sparked entirely by "investment buying." Many shares may have been bought for long-term holding, but unquestionably

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there has been much speculation within the group. Indeed, Wall Street admits there has probably been more speculative activity lately among such issues than in any other section of the market.

Nevertheless, Wall Streeters see plenty of good reasons for the recent effervescence of the shares:

- The aircraft industry's sales last year climbed to a record \$8.6-billion, shading the 1953 figure of \$8.5-billion, and there's every indication that this year's sales will match 1954.

- Earnings reports for 1954 are still incomplete, but analysts believe net income for the year will be far the largest in history. They say net earnings for 1955 should be almost equally good.

- Dividend payments by Big Board-listed aircraft companies last year aggregated \$96.8-million, a rise of 63% over 1953 (see page 164). Payments in 1955 could well parallel those of 1954.

- Scare—On the other hand, with so many speculators among them, holders of the aircraft shares tend to get the jitters whenever news about the companies is anything less than sensationally optimistic.

What happened on the Big Board last week is a good example.

When word of the shake-up in the Kremlin flashed in on Tuesday, the aircrafts led the list in tilting downward sharply on late afternoon selling (BW—Feb. 12 '55, p154).

Typical of reasons given for the sell-off was this chain of ideas: (1) that the changes in the Soviet top command might increase the danger of a "hot" war, (2) that war could revive the excess profits tax, which would cut aircraft earnings, (3) that aircraft company earnings are highly speculative—at any time, even two or three years after they are racked up, the government can come along and take part of the money back through renegotiation.

- Recovery—Last week's decline in the aircrafts was shortlived, however. And, in retrospect, analysts say the break on the Russian news now looks like just another of the many air pockets the plane stocks have encountered during their long climb. The next day, they began moving up again, and the S&P index set another record high before the week had closed.

- Disappointment—Moreover, analysts who watch the aircrafts closely point out that the selling flurry on Tuesday wasn't caused by the Russian news alone. The sell-off, they say, was actually a continuation of a bobble set off by dividend actions taken the preceding day by two major producers—Lockheed and United Aircraft.

Talk had been going around the Street for days that both companies

were going to boost their dividends. However, directors in both cases voted regular payments: 60¢ a common share for Lockheed and \$1 for United Aircraft. On that news (BW—Feb. 12 '55, p156), Lockheed closed \$3 lower and United Aircraft \$2.25 lower.

- Star Performers—Individual issues have been performing well. Boeing Airplane, at its current quotation of around \$78.75 a share, and Douglas at \$130.75 are selling at levels above those prevailing before their 2-for-1 stock splits last May. And, after allowing for that split, both Boeing and Douglas are selling now at prices four times those of 18 months ago. The stocks that weren't split are doing well, too. Lockheed is around \$59 a share, compared with \$20 in September, 1953; North American, around \$60.50 vs. \$17 in September, 1953; United Aircraft, \$87.25 vs. \$38.

Even at these prices, the yields aren't too bad, compared with those of some other speculative favorites. On the basis of last year's dividend payments, for example, Douglas is still offering a 5% return, Boeing 3.8%, Lockheed 4.8%, North American 4.5%, and United Aircraft 4%.

- Outlook—There's a possibility that new orders for military aircraft will taper off in the year ahead. Dollar volume of sales, however, will continue to hold up well. While fewer planes may be delivered, those now being built are bigger and cost more money than those delivered last year.

Production of military planes—orders for military ships make up 95% of the current backlog—is to continue to decline if no new emergency comes up to spark bigger output.

For 1954, production of warplanes probably did not exceed 9,000 units. And by the end of 1956, output may not be greater than 6,000 to 6,500 a year—the rate considered essential to maintain a modern force of 137 wings.

- Not Bad, Though—Lower production doesn't necessarily mean the aircraft companies are headed for the rocks. Take a look at the financial results for Boeing, Douglas, Lockheed, and United in the tabulation on page 41. All have been turning in larger earnings lately than they did in their best World War II year.

And the projected decline in the number of military planes to be produced isn't all bitter tea for the airplane makers.

- Missiles—The silver lining is that as warplane production goes down, the output of missiles—another of their products—is to go up. In fact, the trend is away from the idea of bombing planes with men aboard. In both this country and Russia, the researchers are racing to develop guided missiles—that could hit targets anywhere in the world.

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## Long-Term Bonds Go Well

The Treasury is happy over the role of the 40-year 3s in its \$15-billion refinancing. Calls for cash were high, but less than expected.

Last week, the Treasury completed its \$15-billion refinancing; Secy. George M. Humphrey called the operation a "complete success." The Treasury had to pay out \$832-million in cash, with the refunding going like this:

- Holders of the maturing 1½% certificates switched into \$5.7-billion of the new 13-month notes and \$1.2-billion of the new 2½-year notes. That left \$85-million to be paid in cash.

- Holders of the maturing 1½% notes swapped for \$2.4-billion of the 13-month notes and \$2.6-billion of the 2½-year notes, leaving \$372-million to be paid in cash.

- Holders of the 2½% bonds took \$1.9-billion of the new 40-year 3% bonds and \$319-million of 13-month notes. This left \$375-million for cash payment.

The focus of the refunding was the 40-year 3% bonds, the longest maturity offered since the Panama Canal issue of 1911. Unlike its nearest relative, the 30-year 3½s that were issued with unhappy results back in May, 1953, the new bonds were not offered for cash. Only holders of the called 2½s were eligible to swap for the new 3s. Actually, the \$375-million paid in cash to holders of the called bonds was abnormally high for such a refunding. But Treasury spokesmen said the result was not disappointing—they had figured that as little as \$1.5-billion worth of the 2½s would be swapped for the new bond.

- "On the Market"—Many observers of the money market thought the issue was well handled, and that the new 3s were "right on the market." The outstanding 3½s had been discounting a new companion long-term issue for some time (BW—Jan.22'55,p60), and by early this week had sunk to the lowest price since early February, 1954. One reason for the earlier price weakness was that investors were holding off the 3½s until they could see what terms would be on the new issue. Another was the market's reaction when the Federal Reserve shied away from an "active ease" policy to one of comparative neutrality in the money market (BW—Dec.25'54,p19). And some of this week's weakness, in both the 3½s and the new 3s, stemmed from an indication of heavy private demand for money—General Motors Acceptance Corp. announced plans for a \$250-million debenture issue next month.

The Treasury was understandably

cautious with its new long-term issue. It launched the issue in a week when there was only one new corporate offering, and when the calendar has been relatively light for a couple of weeks. Thus the new 3s won't be sopping up large amounts of money needed for financing corporate or municipal issues.

Back in 1953, the 3½s rammed into a market clogged with heavy long-term demands from both the corporate and tax-exempt sectors. And the bonds made their debut when the Federal Reserve was tightening money conditions generally. The combined effect was to squeeze credit and soak up available long-term funds so fast that, in isolated cases, borrowers were unable to borrow at rates to which they felt entitled.

- Measure—One purpose of the new long-term issue, aside from acting as a companion piece to the Federal Reserve's "less active ease" policy, is to provide a yardstick for the Treasury to use in planning future long-term issues. Humphrey and his Under Secretary, W. Randolph Burgess, are still pursuing the elusive debt stretch-out policy that has been a major objective of Eisenhower money policy (BW—Oct. 30'54,p64). This latest issue will lengthen the average maturity of marketable debt from four years, two months to four years and nine months. Humphrey pointed out last week. But every day that passes without a new issue cuts down the advantage, and any refunding that doesn't push the average further ahead is, of course, a net loss of ground.

It is unlikely that the market will see another long-term issue until next fall, although Treasury spokesmen talked recently of entering the long-term market "once or twice a year."

Moody's Bond Survey pointed out recently that "at current yield relationships the new 3% bond is still the most attractive Treasury that truly long-term investors can buy now." However, the survey figures yields will rise further as the Federal Reserve continues to play a less active role in the money market.

Salomon Bros. & Hutzler, prominent Wall Street government bond house, has issued a survey indicating the pressure for higher interest rates that will follow if the Fed remains relatively passive. Its survey indicates that demand for investment funds will outstrip supply by some \$1.6-billion this



*This announcement is neither an offer to sell nor a solicitation of an offer to buy any of these Shares. The offer is made only by the Prospectus.*

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year, which will exert an upward push on interest rates. This survey estimates that demand for capital will total about \$35.2-billion, with mortgages calling for the largest chunk, \$21-billion. The supply of long-term funds was estimated by the survey at \$33.6-billion. Corporate financing through securities issues was estimated at \$6.8-billion, and state and municipal borrowings should total the same, the survey indicated.

• **Reaction**—One salutary effect of the new 3s that wasn't readily discernible in the market was its effect on the extremely sticky municipal housing bond issue, some \$44-million of which is still unsold. The issue, comprising \$118-million of eight different housing authority's bonds, hit the market over a month ago.

When the terms of the Treasury offering were known, the housing bonds, notably the longer-term issues, began moving a little faster. The bonds, with an average 2.5% yield for the longest maturities, are tax-exempt and government backed, and therefore looked attractive relative to the taxable 3% government bond. Now the "dealer group," headed by Lehman Bros., reports the bonds are moving at a rate of about \$500,000 a day.

### FINANCE BRIEFS

The Senate study of the stock market will have to be postponed while the Banking Committee processes replies to its questionnaire. Meanwhile, the committee revealed that about 12%—or \$7.3-billion—of all loans by Federal Reserve member banks are "apparently secured by stocks and bonds." Of this \$4.3-billion were loans to purchase or carry securities, the rest loans secured by securities, the committee said.

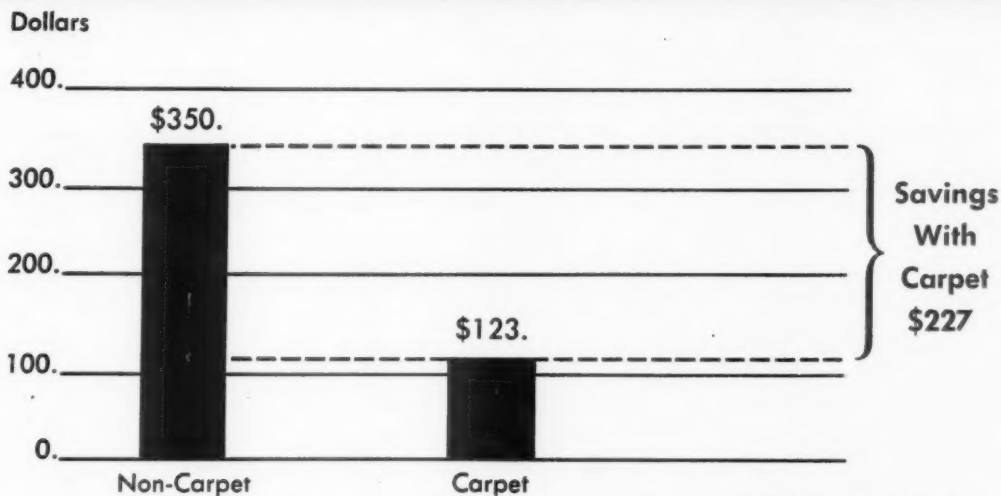
• **Merrill Lynch, Pierce, Fenner & Beane**, the country's largest investment house, reported operating income of \$73.3-million last year, up 53% from 1953's mark of \$47.7-million. Income available to the firm's 107 partners after taxes was \$4.9-million, better than twice the 1953 total.

• **Pipeline financing:** The Federal Power Commission approved plans of Pacific Northwest Pipeline Corp. to finance its \$163-million pipeline from New Mexico to the Pacific Northwest (BW-Aug. 21 '54, p. 75). The financing, expected to come in late March, will include \$120-million in first mortgage bonds, \$15.5-million new common shares to be sold to stockholders, and \$20-million for 287,000 units, each consisting of a \$60 note and one share of common stock.

# FLOOR MAINTENANCE

## Carpet vs. Non-Carpet

Average yearly cost of maintaining  
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## Carpet Cuts Cost up to 65%

Faced with rising office maintenance costs, executives this week found new proof of the old truism: "The best costs the least." A report just completed that digs into every phase of the floor maintenance problem comes up with a surprising fact:—Carpet, for all its expensive "look" actually saves money.

The report (an analysis of three separate studies) compares maintenance costs of carpeted with non-carpeted floors. These studies were based on the cost and amount of labor, materials and equipment necessary to maintain 1,000 sq. ft. of floor space.

The chart above shows that maintenance savings with carpet amount to \$227 per 1,000 square feet each year — a 65% saving over non-carpeted floors. This means that carpet pays for

itself, in less than five years, out of maintenance savings alone.

**Trend to Carpet** — Undoubtedly, skyrocketing maintenance costs are one of the reasons for the current trend to carpet not only in executive offices, conference rooms, reception rooms, etc. but in employee work areas as well.

Other reasons for the trend: management is finding that quiet carpet increases employee efficiency—cuts floor noise up to 90%—sharply reduces overall room noises.

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# MARKETING

## Three Weeks That Rocked an Industry

● Suddenly, makers of heavy electrical equipment were on a price-cutting spree. Nobody knew who started it, but Westinghouse and GE joined battle.

● Prices on some items dropped as much as 50%.

● The industry refers to it now as the "January White Sale." It ended abruptly last week.

Any time before last month, manufacturers and buyers of certain heavy electrical equipment—power transformers, heavy switch gear, powerhouse motors—might have laughed at the possibility of a "price war" or "white sale" in the usually conservative, well-scheduled industry. But this week, it was no laughing matter for the equipment manufacturers. They had just been through the industry's first grand-scale price-slashing spree.

It was estimated that customers may have saved as much as \$200-million as a result of price cuts during the spree. It lasted three weeks, ended abruptly last week.

• **The Crash**—It all started around the middle of last month with the suddenness of a war. It was "like the crash in 1929," as one manufacturer put it. Major contestants in the price-cutting of heavy powerhouse equipment (some of it costing up to \$300,000 per piece of machinery) were the so-called complete-line manufacturers—General Electric Co., Westinghouse Electric Corp., and Allis-Chalmers Mfg. Co. Westinghouse and GE stayed with the spree until it ended; Allis-Chalmers subsided earlier.

No one knows who started it. Manufacturers hint darkly that "competitors" started to reduce prices drastically on equipment; "we had to go along to meet the competitive situation." The main buyers in the "January White Sale"—as manufacturers now woefully refer to it—were the nation's utility companies.

• **Feelers**—As a rule, utility engineers figure their power equipment needs on a pretty tight schedule. But when they began to find "real flabbiness" in high-price power gear last month, they made hurried calculations of their needs through 1957 and put out feelers for the bargains.

One deal went like this for a South-west power company:

• A salesman from one of the top manufacturers called "We know you

have delayed for a year placing your order, he said. "... If you buy now, we will give you 9% off on your order."

• The company checked with another top manufacturer after the first offer and found that it was possible to get 11% off the usual list price.

• When the first salesman heard of this he came back with a package deal: 17% off for the specified heavy equipment and up to 30% off for other, lighter equipment.

• **Bargain Sale**—Deals were in the making all across the nation. Purchasing agents for utility companies, who have a grapevine system like that of a prison camp, spread the word—and the war was on. One Western utility got a half-price deal on transformers. It bought one power transformer for \$26,000—an item that had sold for around \$51,000 at the end of last year.

In one metropolitan area, two power outfits claim they saved as much as \$2.5-million on the January White Sale equipment deals. Many of the price cuts ran up to 50% before some sort of truce was called. There was even some price-slashing in small equipment for power plants. Capacitors, usually priced at around \$128, were knocked down to \$68 before "things firmed up."

• **Manufacturers Howl**—Most of the utilities told reporters that the real competitors going into the final rounds of the price fight were GE and Westinghouse. Apparently, according to the buyers, Allis-Chalmers and a few specialty manufacturers dropped out of the ring pretty quickly.

GE said in a prepared statement: "The General Electric Co. discovered that its competitors were without exception offering drastically reduced prices. ... What the company has been attempting to do is to meet this competition as we have found it."

Allis-Chalmers' president, W. A. Roberts, said: "We do not indulge in special bargain quotations."

Westinghouse executives followed

with: "We didn't start it . . . we've been holding our heads wondering how it all happened so fast."

• **Gouged**—The specialty manufacturers and, down the line, smaller producers of electrical equipment say they were "really gouged" by the fast and furious price cutting. One Midwestern transformer producer said: "It's a sad thing for the industry. Many contracts will run for three years; this soaking up of business will ruin hundreds of smaller manufacturers."

Westinghouse says that most of the sales made during the three-week rush merely represented accelerated buying. Salesmen claim that no really new business was picked up. The buyers were just customers who were going to make purchases later anyway.

GE doesn't like the word "price war." Cuts of 20% to 25% in some lines were admitted by GE, but officials said no specific deals could be revealed "because it would give aid and satisfaction to our competitors." The company thinks that the estimate pegging the over-all industry price drop at \$200-million is "ridiculous."

Both GE and Westinghouse think the "competitive situation" is over. One of GE's executives said this week: "It's all over . . . I wish people would quit talking about it."

• **Situation Ripe**—Looking at the economic side of the heavy electric equipment industry, the situation was ripe for a buyers' market (BW—Oct. 9 '54, p. 29). Utility companies really didn't start to gear up for heavy production until shortly before World War II. Here is what happened to utility production:

• In 1940, the industry began to expand. It reached output of 141.8-billion kwh. per year.

• World War II was a period of little expansion because of government regulation, but production did get to 228-billion kwh. in 1944.

• The immediate postwar period saw a momentary slump in utility volume (222-billion kwh.), but as industry began to meet postwar buyer demand, things picked up.

• Utilities began demanding equipment right and left. It was a real sellers' market. When the Korean War and more regulations hit, the industry had an output of 329-billion kwh. Now the figure is well over 400-billion kwh.

• At the end of 1953, the utilities' heavy buying was over, but the manufacturers had built up tremendous capacity for producing equipment. In the

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first seven months of last year, equipment orders fell off to a trickle; and as buying began to pick up in the last quarter, experts say, the situation was primed for the January sale. Everyone—with the exception of some utilities—admits that the first major price war in the heavy electrical equipment industry had "drastic effects." Big manufacturers, faced with rising costs, are still bleeding. Some of the small manufacturers say they may not recover at all.

## FCC Under Fire

**Congressmen view dimly the commission's handling of TV. Networks, too, are in for criticism.**

The television networks—mainly NBC and CBS—and the Federal Communications Commission have a common problem this week:

Both can look forward for the next year or two to continual harassment from powerful senators—both Democrat and Republican.

The television networks are being criticized for monopolizing the ever-growing TV industry to the detriment of the industry itself.

The FCC will be harassed with charges that it is doing such a poor job of regulating the industry that the networks have been able to set the pattern of TV growth, and that it knows less about the TV broadcasting business than the networks do.

• **Senate Committee**—The specific source of this criticism is in the Senate Interstate & Foreign Commerce Committee, whose job is to keep tabs on FCC. This week FCC has highly critical, detailed reports from experts hired by the committee—the first from Harry M. Plotkin, who reported for the Democrats, and the other from ex-FCC Commissioner Robert F. Jones, who reported this week for the Republicans.

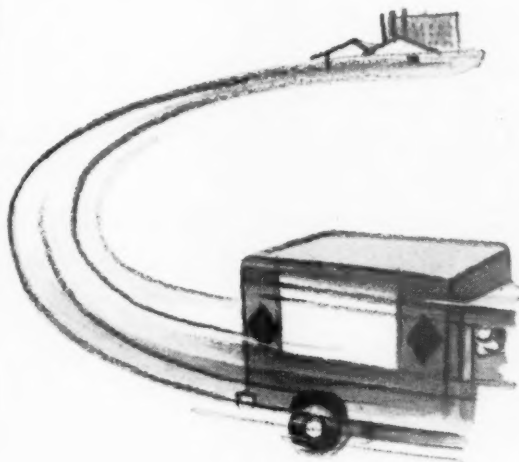
Both these experts agree that Congress should conduct a deeper investigation to find out why the TV industry is the way it is. Sen. Warren G. Magnuson, now chairman of the committee, has already gotten \$60,000 to pay a special staff to continue the investigation. Sen. John Bricker, the most important Republican involved in the furor, agrees with this. He has a bill of his own, which he has introduced again this year, to require the FCC to regulate the networks.

• **Troubles of UHF**—Actually, behind these reports are the discontented enterprisers of the TV industry; the TV nets that have had a hard time (mainly





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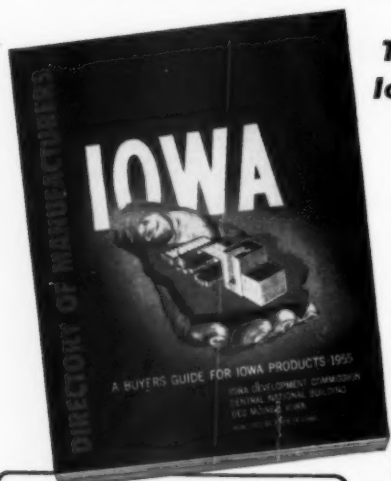
Whether you're sending or receiving,  
whether your shipment is big or small,  
and whether it's moving by rail or air—  
you'll find it pays to specify  
Railway Express. It makes the big difference  
in speed, economy, and safe,  
sure delivery. Railway Express is the  
complete shipping service in the  
American tradition of private enterprise.

As a contribution in the public interest,  
RAILWAY EXPRESS will take your orders for CARE.



**...safe, swift, sure**

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## The 1955 Guide to Iowa's Manufactured Products

Industries seeking a new source of supply should have a 1955 Iowa Directory of Manufacturers. It contains the names, location, products made, and number of employees of Iowa's more than 3,700 industrial firms. Nearly 2,300 different durable and nondurable goods are manufactured by Iowa industries. There are almost no products that are not manufactured in Iowa. The Iowa Directory of Manufacturers will make it possible for you to readily contact these varied industries.

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Iowa's industrial economy is expanding rapidly. If you are planning on building a branch plant, a detailed investigation would prove that Iowa offers many industrial advantages. Here you will find a balanced economy with farm and factory in every county. Industrial plants are located in 588 Iowa cities. There is no great concentration of manufacturing. Iowa offers a highly intelligent and capable labor force, a central geographic location with good transportation facilities to move your products throughout the United States, and an abundance of natural resources and raw materials. Manufacturers already located in Iowa have discovered that its state government encourages and assists existing industries in many ways. INFORMATION CONCERNING IOWA'S INDUSTRIAL RESOURCES WILL BE SENT TO YOU ON REQUEST.

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## IOWA DEVELOPMENT COMMISSION

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## Special drive engineered by Sheppard

**Sheppard**  
**20 H.P.**  
**DIESEL**  
with  
torque converter  
transmission



This complete unit, measuring less than 46" overall, was developed by Sheppard to meet the special power needs of a new General Electric Mine Locomotive. With it the 4 foot trammer can start and haul, at efficient speed, 100 ton pay loads.

**Complete Power Drives**  
**Engineered to meet your**  
**special requirements**

Sheppard welcomes special power applications...will work with you to engineer a complete power plant including drive or other special equipment. Write today.

Mail Coupon  
for complete  
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Power Units • Generating Sets • Farm Tractors

Du Mont), and the TV stations that have had a hard time (mostly UHF stations). And it's mainly the disenfranchised telecaster with one of the 70 UHF channels who has been getting to his congressmen and senator. The consumer—the person who has the biggest investment in the whole business with his 30-million TV sets—doesn't seem to be squawking much. Many a viewer in a one-station area would like to have another program as an option; but that goes for viewers in two-, three-, or even four-station towns.

• **"Unfreeze"**—The big problem is UHF and the "unfreeze" allocation plan that was designed to give the viewers "nationwide competitive service." Since the plan came out in 1952, the networks and the VHF stations in general have been doing all right; but, with few exceptions, the UHF stations have hardly gotten off the ground. In fact, many that got onto the air went broke and quit; others who got an FCC license turned it back without ever broadcasting a single program.

Most consumers have sets that receive only the 12 VHF channels; VHF stations have the good network shows that the consumer viewer likes to see. Furthermore, VHF stations put out a much better signal much farther than the UHF stations can do. As a result, a UHF station stands a chance only in areas where viewers can receive no other station.

Plotkin says that the network affiliation of a station is almost as important as its license to operate; that the networks in New York, through their affiliation contracts and so-called "option time," actually determine what is seen and heard in most homes during a large part of the broadcast day.

• **"Option Time"**—To a large extent "option time" is the big villain in Plotkin's book. This is the clause that gives networks the right to put any program they want on the air through any affiliated station during any three hours of any five-hour segment of the broadcast day. "Option time" is what enables CBS to guarantee to put, say, "Toast of the Town" into a given number of markets at a given time.

Limit on "option time"—that is, three out of five hours—is a ceiling imposed by FCC's so-called chain broadcast rules. These are rules originally drawn up for the radio stations back in 1941; FCC just applied them mechanically to TV. This limit on "option time" is about the only regulation of network broadcasting that has any real bite. FCC does limit the number of television stations that a network may own.

Plotkin says that because of option time the only way an advertiser can do business smartly is through the networks. He may be "bumped" if he deals

directly with a station. And with advertising dollars funneling through the networks, non-network programming, which might give the stations independence and security outside the nets, doesn't stand a chance.

Option time is Plotkin's main complaint. His second one is affiliation. He says the networks pick capriciously, dispensing their favors as they wish. He thinks that programs should be available to any station as long as there is no substantial overlap of service area.

• **Law or No Law**—Plotkin says FCC can do all this without legislation. Bricker and Jones have nothing to say about option time, but they do want networks to set up standards they use for picking their affiliates. Bricker thinks legislation is necessary to force FCC into action. If this is done, FCC is automatically in the business of regulating the networks.

Jones draws on his experience with the commission to drive home one point that FCC may find hard to answer: that FCC lacks technical and financial information that the networks have on what goes on in the telecasting industry. Jones comes up with page after page of statistical questions he'd like to have answered before he'd come up with any radical recommendations as to what should be done.

FCC is going to be put on the pan, for sure. One answer it will have to many of the sharpest criticisms: We've asked Congress several times for money with which to conduct an investigation of the networks, and Congress turned us down.

• **The Pattern**—The biggest fault found with FCC can't be mended. Both Plotkin and Jones say FCC bungled when it created the present pattern of 1,875 commercial VHF assignments and 556 UHF assignments. But neither side is very pointed with ideas as to how the present pattern of telecasting can be changed. Moving all telecasters to the VHF band is a proposal that just can't be done for obvious reasons. Changing channel assignments so that areas would be either all UHF or all UHF—with no "intermixture" as at present—is desirable. Both agree this is not so simple as it sounds.

Whatever FCC does, Plotkin implies that the situation can't go along as is.

Citing the Associated Press case, Plotkin says network service is so essential that it must be available to all stations on a non-discriminatory basis, except where duplication is involved. He says option time is block-booking of a kind that's "more virulent" than that outlawed by the Supreme Court. He says it's an "arrangement between the networks and their affiliates to oust the programs of important competitors."



**9 out of 10 people**



**all over America**



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**when they're ready to buy!**

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It works like this: Your trade-mark appears over a list of your local dealers, their names, addresses, and telephone numbers. This dealer identification plan is available in directories across the nation — or in selected markets.

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For further information call your local telephone office or see the latest issue of Standard Rate & Data.

THIS EMBLEM IN YOUR ADVERTISING  
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**SPECIAL EXTERIOR GRADE.** For maintenance huts, temporary construction and other exterior applications, see Protekwood, a low-priced companion product.

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## THE MARKETING PATTERN

### Auto Dealers in a Jam

**A**UTO DEALERS in 1954 sold about 5.3-million new cars, and many of them lost money. This year they may sell an additional 4-million new cars, and many if not most factory-franchised new car dealers will tell you that high production threatens to bankrupt them. What peculiar kind of economics dictates that the more you sell, the worse-off you are?

In auto retailing, the answer lies in how you do business. From the dealer's viewpoint, the ideal is always to have more panting customers than cars. That way, you always get full price for a new car and don't have to allow more than book value for the trade-in. You make money on car sales, don't have to worry whether or not the service shop can carry the overhead of your store.

The trouble with that way of selling is that it's gone, probably never to return, barring war. Supply has caught up with demand. And there are some deep stirrings in the auto business that no one can yet diagnose for sure. All the dealers know is that their pattern of business is disintegrating. Instead of having more customers than cars, dealers are trying to keep up with a new emphasis on volume (BW—Feb. 5 '55, p54).

**T**HERE WAS EMPHASIS on volume before the war, too, with about the same number of dealers as today—but not the kind of volume that the manufacturers are now thinking of. Peak prewar years were 1929 with 4.6-million cars and 1937 with 3.9-million. Now we're well above 5-million, and sales by 1960 could be 8-million or 9-million a year. Is the distribution system adequate for that kind of load?

Apparently not, even today. Franchised dealers at their annual meeting in Chicago last week heard that about 20% of last year's new cars—more than 1-million of them—were sold by "unauthorized dealers." That means "sold from used car lots."

What the franchised dealer calls "bootlegged" cars can be bought cheaper from used car lots. The lot operators pay only actual transportation charges instead of the factory-fixed amount that the

franchised dealer pays. Equally important, he has no high overhead in buildings and service shop equipment. Even with an equal break on transportation costs, the average franchised dealer in, say, California couldn't beat the used car man's price. This raises the question: What is the future of a franchised dealer in California?

**T**HE QUESTION is pertinent for dealers elsewhere, too. "Bootlegged" new cars generally come from franchised dealers near Detroit, the basing point for standard transportation charges. A Detroit dealer, for example, says a competitor got 600 cars in January—100 for retail sales and 500 to sell to a used car broker. "He's in the wholesale business as well as the retail," says the dealer. The 600-car man may have made only \$50 a car on the 500 he wholesaled, but that was a clear profit of perhaps \$25,000. It enabled him to give fat discounts on the 100 cars he retailed; his discounts draw business from outlying towns in Michigan.

So, what is the future of dealers in suburban towns where cars are sold like that?

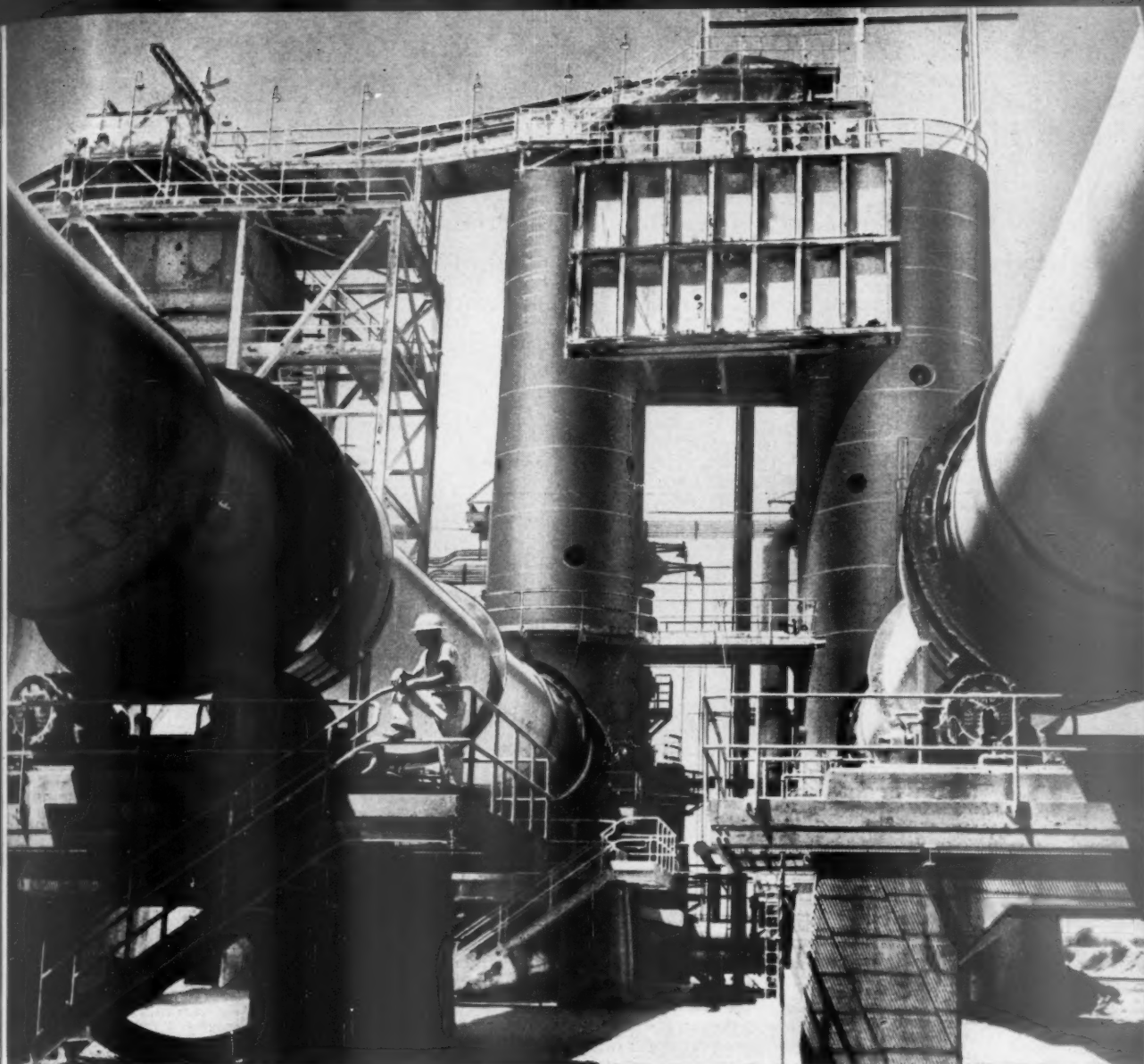
A small-town franchised dealer will point to his service shop as the most important part of his business. But service facilities are available at independent garages, and many car buyers seem to have turned to those.

**F**INALLY, there is the problem of how "bootlegging" is chipping away at the franchise system. The trend, if not reversed, could lead to a department-store type of retailing, each dealer selling new cars of various brands.

The dealers, of course, are fighting such trends every step of the way, even to seeking federal legislation to outlaw bootlegging. Factories, too, say they are trying to stamp out unauthorized sales—but it would seem difficult to ship a man 500 extra cars without getting a mite suspicious.

The cardinal point in all this is: How do you sell 8-million cars a year when the customer is tired of paying distribution costs that were built into the price tag 25 years ago?





## Mathieson Soda Ash: *there's always an 'r' in purit*

Purity knows no season in the production of Mathieson soda ash; oyster *shells* are available every month of the year. Here at Lake Charles, La., shells are the starting point of the ammonia-soda process. Taken from the Gulf by the thousands of tons, they are washed and placed in huge storage piles, then transferred as needed to the towering silos shown above. From the silos they are fed into large rotary kilns where carbon dioxide and lime of extremely high purity are obtained.

At *all* Mathieson plants, attention to raw materials helps assure the quality of products. In addition, buyers have the

protection of multi-plant production facilities . . . 6 caustic soda plants, 5 chlorine plants, 7 sulphuric acid plants, 3 ammonia plants . . . plus practical technical assistance with materials handling and application problems.

When planning current or future chemical requirements, be sure to call on Olin Mathieson. Perhaps you can buy to better advantage from one of America's largest, most diversified producers of basic industrial chemicals.

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INDUSTRIAL CHEMICALS DIVISION • BALTIMORE 3, MD.



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ETHYLENE OXIDE • ETHYLENE GLYCOL • DIETHYLENE GLYCOL • TRIETHYLENE GLYCOL • POLYGLYCOLS • DICHLOROETHYLENE • ETHYLENE DICHLORIDE • METHANOL • SODIUM METHYLATE • ETHYLENE DIAMINE

# Fair Trade Setback

Nebraska is fifth state supreme court to hold non-signer clause unconstitutional . . . Rexall switching to franchise stores . . . Bristol-Myers' bid for Bromo-Seltzer hits snag . . . British step up retail census . . . FTC cracks down on "no-switch" agreements.

"Fair trade" lost for the fifth time last week in its series of battles before state supreme courts.

Nebraska's high court is the latest to hold that the so-called non-signer clause in most state fair trade acts violates the local state constitution. This is the clause that makes fair trade minimum prices binding on all retailers—whether or not they have signed fair trade contracts with manufacturers or wholesalers—as long as one such contract exists.

The Nebraska court's decision was similar to previous ones in Arkansas (BW—Feb.12'55,p32), Georgia, Florida, and Michigan. Another case is before the Utah supreme court, and lower court actions are brewing in several other states.

Rexall Drug, Inc.—like several other large drug chains—is selling off its company-owned retail stores in order to concentrate on a network of franchised outlets. Rexall Pres. Justin Dart announced this week that the company now has only 190 company-owned stores, compared with a postwar high of 559 a few years ago. Where possible, Rexall is selling to individual store managers, who can operate the outlets on lower overhead while still taking advantage of chain operation savings. Dart revealed that Rexall's total sales volume dipped \$23-million last year, but its earnings were up fractionally. Rexall also will bear down on its drug and rubber product manufacturing operations.

RCA-Victor's price cuts on its classical long-play records have doubled the number of those records sold in one month, the company says. Dollar sales through January were up 32% over last year.

Another drug merger is now in the works.

Last week, Bristol-Myers, Inc., got turned down in a straight cash bid for Emerson Drug Co. Reportedly, one faction of the controlling Emerson

family is holding out for a stock transfer deal. But the Emersons have had the company on the block for some time, and the trade is looking for a sale almost any day. In case of a proxy fight between the family factions, negotiations with Bristol-Myers might be reopened. The latter company is interested in adding Emerson's well-known Bromo-Seltzer headache salts to its own mixed line of drugs and toiletries, which includes Bufferin headache tablets, Sal Hepatica laxative salts, and Ipana toothpaste.

Conceivably, government antitrusters might question the overlap of Bufferin and Bromo-Seltzer on the headache remedy market.

No such snags came up to stall last week's merger of Warner-Hudnut, Inc., and the Lambert Co. (BW—Feb.12'55, p34).

The trade regards this one as a natural, with each company rounding out the other's product lines. W-H's Warner division specializes in a small line of prescription pharmaceutical drugs, but its Hudnut line of cosmetics and toiletries is the backbone of the company. Lambert's best-known products are Listerine antiseptic and the new Antizyme anti-enzyme toothpaste.

Schenley Industries' acquisition of 70% of the outstanding Park & Tilford stock violates the antitrust laws, says the Justice Dept. In a suit filed last week in federal court in Wilmington, Del., the government asks that Schenley be made to dispose of its controlling interest in Park & Tilford Distillers Corp. (acquired last December). Such control substantially lessens competition and tends to create a monopoly in the liquor business, Justice charged.

The British government is out to get a better statistical picture of its country's retail business.

Unlike the U.S., Britain hasn't gathered many facts and figures on its retailers and wholesalers. In fact, it was only comparatively recently that the

government undertook a business census similar to the one that the U.S. Commerce Dept. conducts (BW—Dec. 13'52,p72).

Now the British Board of Trade is expanding its monthly poll of retail establishments to include a sample of 19,000 small independent retailers not previously polled. Up to now, the Board of Trade's coverage has been largely restricted to the bigger chains and co-ops.

The monthly poll will ask simply for total sales volume figures.

The Federal Trade Commission has cracked down on the so-called "no switching" agreements in the magazine subscription solicitation business.

These are agreements among the five biggest companies in the business of door-to-door solicitation not to hire each other's former commissioned solicitors. FTC now rules that this is an unreasonable restraint and an unfair method of competition.

Commissioner John W. Gwynne wrote the unanimous decision, holding that "every individual has the legal right to attempt to better his conditions by seeking other employment or by going into business for himself."

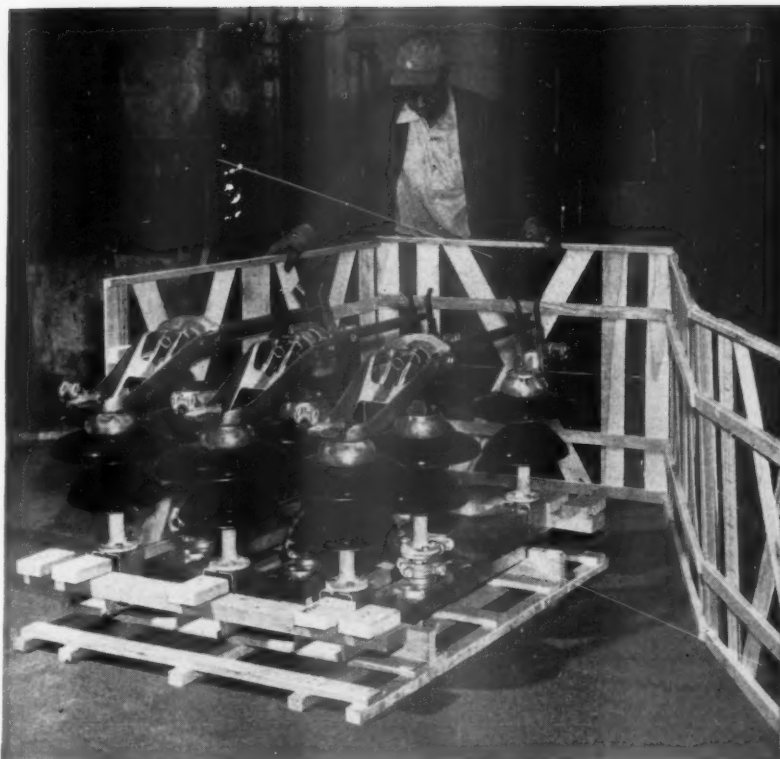
Gwynne also said every circulation agency has the right to offer better pay or working conditions, even though this might attract the employees of competitors. "These are the individual's and the company's rights," Gwynne said, "and should not be contingent on the decision of a former employer..."

FTC's order also prohibits the five circulation companies from penalizing publishers who deal with other agencies that do not adhere to the no-switching agreements.

The commission's ruling partially reverses a ruling by an FTC hearing examiner, who said last March that the no-switching agreements were legal and reasonable means to "prevent dishonest employees from switching from one agency to another . . . and continuing objectionable practices in soliciting."

FTC said the Central Registry Board—an industry self-policing group—in cooperation with local Better Business Bureaus has been able to cope with violations of fair selling practices without need for the no-switching agreements, which it pronounced illegal.

The five companies involved in the FTC case are: Union Circulating Co., Inc.; National Circulating Co., Inc.; Periodical Sales Co., Inc.; Publishers Continental Sales Corp.; and National Literary Assn. They employ a total of 3,000 solicitors and do an annual business of \$15-million.



Switch is set in place by lift truck on pallet base specially designed to permit use of same crate for switches of two sizes. Wirebound mats wrap around easily, are secured in minutes.

Although 106 pounds lighter than previous container, which was custom built for each switch, rugged engineered wirebound permits fork lift handling and stacking of 759-lb. gross weight units.



Hold-down assembly, already in place here, goes on next. Then top is placed in position and nailed. All parts fit nicely, reinforcing each other for strength and easy assembly.



## Prize-winning General-Engineered Wirebound Cuts Packing Time 85% for Delta Star



This wirebound crate won first award for excellence of design for Delta Star in the 1954 competition sponsored by the Society of Industrial Packaging and Material Handling Engineers, the 6th consecutive first for containers by General Box.

The change from a custom-built crate to a General wirebound design cut packaging time for high-voltage disconnect switches from 3½ hours to ½ hour and reduced gross shipping weight 106 pounds per unit—from 865 to 759 pounds. These important savings were accomplished by Delta Star Electric Division, H. K. Porter Company, Inc., of Pittsburgh.

Skilled labor was required to build the crates formerly used, while the precision-made parts of the new wirebound are put together by unskilled labor. A bit of ingenious design that makes the crate quickly adaptable to another size switch permits standardization. There is a further saving in the

lower cost of the materials in the General wirebound, an improvement in the degree of protection afforded—thanks to engineered and tested design—and an improvement in the appearance of the container.

Specialized experience and design and testing facilities unmatched in the industry are applied to the creation of custom-designed, volume-produced containers by General Box. To find out how much better your packaging can be, have a General man call. No obligation. Consult your local directory, or write direct. Ask for your free copy of illustrated booklet "The General Box."

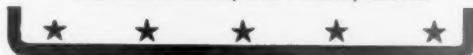
Factories: Cincinnati; Denville, N. J.; East St. Louis; Detroit; Kansas City; Louisville; Milwaukee; Prescott, Ark.; Sheboygan; Winchendon, Mass.; General Box Company of Mississippi, Meridian, Miss.; Continental Box Company, Inc., Houston.

### Engineered Containers for Every Shipping Need

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# General Box

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*Here's the new typewriter that*



*Ask your Royal*

ROYAL TYPEWRITER COMPANY, Division of Royal McBee Corporation



# *makes your letters "bloom"!*

*it's the new*

## **CARBON RIBBON** *Royal standard!*



Have you ever seen a typewritten letter that looks better than printing? . . . one in which the individual characters seem to stand up black and sharp . . . have what the type experts call "bloom"?

If you have, you are very lucky, because you have seen a letter typed on the marvelous new Carbon-Ribbon Royal Standard, an office typewriter so versatile that we believe it is going to be the accepted machine from now on.

To know actually what this new machine will do, you must have it brought to your office and put through its paces. Call the Royal Representative and ask him to show it to you.



For executive typing, you get clear, beautiful work in any one of the wide variety of type faces available. The work is so good, so clean, so authoritative that we want you to see it as it's done.



For duplicating letters, you get work that is so outstanding it is often taken for original typewritten work. The Carbon-Ribbon Royal can also be used to fill in letters and make them look personal.

*Representative about the*

**new carbon ribbon ROYAL<sup>®</sup> standard**

*the double-duty  
office typewriter*

*world's largest manufacturer of typewriters—standard • electric • portable • Roytype<sup>®</sup> business supplies*



**BREAKING THE RULES** for materials handling and storage, Timken stores steel and parts outdoors, not in plants. Straddle trucks instead of cranes do the hauling.

## Timken

The storage and handling methods illustrated at Timken Roller Bearing Co.'s Steel & Tube Div. would probably shock some old-time steelmakers. Steel on order, and parts for the plant are dispersed in neat piles outside the plant. Busy straddle trucks, directed by radio, haul them to processing stages—such as Timken's new annealing furnace.

That furnace, too, is probably the most unorthodox of its kind in the steel business. From the outside, it just doesn't look like an annealing furnace. But its apparent freakishness is actually the carefully planned result of Timken's unorthodox policy for managing its plants and materials handling.

Ordinarily, a steel firm would house a new tunnel-type annealing furnace in a strong, roomy building. The building would have strength enough to support an overhead crane and its loads. Extensions at each end of the building could make room for storing materials to be processed, and for loading and unloading the furnace.

But the Canton, Ohio, firm broke most of the rules in its new furnace housing. It built the furnace in the open, isolated from the other buildings of the Gambrinus works. A simple quonset building keeps off the rain. Material ready for annealing lies in the open nearby. A lift truck, replacing the conventional crane, loads and unloads the materials. At the end of the furnace, the truck also lifts the tunnel car from its track, and carries it back to the starting position.

Using the Timken way, the savings were between \$300,000 and \$350,000 in initial costs. Yet the firm says it hasn't sacrificed anything in its operations.

**• Planned Heresy**—Timken has been cutting costs like that for the past nine years. So the furnace case wasn't just a spur-of-the-moment project. By trial and error, the management of Timken's Steel & Tube Div. has tossed many accepted material-handling theories into the ash can. And it has replaced them with homemade methods that have brought not only savings for the firm, but better relations with its customers, too.

At Timken, the group responsible for this industrial heresy is called the Materials Handling Dept. It is headed by Frank C. Wier. And it has one over-all guiding principle: Materials stored and used for processing should be dispersed, and not concentrated in stock yards or inside plants. To make that possible, one thing is needed: a highly mobile

# Throws Away the Book

system of transportation for materials, depending mainly on trucks.

Besides developing these ideas, the department puts them into force, and makes them work from day to day.

• **Old and New**—In practice, the department's ideas have worked out this way: Like any other steelmaker, Timken's steel operation once ran its materials handling according to the book. Movements of materials were kept down to a minimum. They were handled by the plant railroad, railroad-type cranes, overhead cranes, and small capacity lift trucks. Materials—usually several different orders bunched together—stood in the plant, close to the next processing step.

Today, materials are stored in yards anywhere within a 3-mi. radius of the buildings. Once an order starts its trip through the plant, the materials are kept together, and separated from other orders. The hauling for nearly every job is handled by straddle trucks and heavy-duty lift trucks.

• **Customer Gains**—Besides the initial saving, the Timken system has two other important advantages, both of which benefit the firm's customers. The improved handling has cut 20% off the lead time for an order. It has also almost eliminated the monthly headache of shipments that are past due.

• **Beginnings**—Timken's system really got its start in 1946. (After it caught on, the company management officially established the Materials Handling Dept. two years later.) It began when Wier moved in to build a project for bettering the looks of the Gambrinus storage yard. The real objective was to improve the morale of yard employees.

About the same time, the Gambrinus plant needed additional space for a new piercing mill. It got the space by freeing its floor area of spare parts stocked there for use by the other plant at Canton, and pushing these parts outside.

• **Trucks**—That's when the mobile transportation idea came in. The parts were parked in an area that couldn't be serviced by overhead cranes or the railroad. So Timken turned to straddle trucks, big, tall four-wheeled carriers used mostly in lumber yards. To supplement them, Timken brought in more and more heavy-duty lift trucks.

A fleet of 11 trucks—directed round the clock by two-way radio—has bit by bit taken work away from the plant railroad. Now the railroad's main job is hauling charging-scrap and ore from Gambrinus to the electric fur-

naces at Canton. It also hauls some products such as heavy wire coils.

With a few changes, the present system could take over these operations, too. The Materials Handling Dept. feels there is no longer any need for a railroad or for overhead cranes. But the equipment is there. So the company continues to use it.

• **Radio Direction**—The nerve center for the system is the two-way radio. A central station located at Gambrinus runs the whole show. An operator there receives calls from 38 stations located at both plants, relays them to the truck operators. Although the trucks are strictly production equipment, they sometimes get calls to help other Timken departments, but respond to these only when they are free.

Thanks to the radio, a truck is on the go 72% of its working hours. An average trip is around  $\frac{3}{4}$  mi. and a driver racks up about 64 mi. in his 8-hr. day, traveling at an average speed of 8 mi. per hr. On an ordinary day, the whole fleet moves from 900 to 1,300 loads of material.

To speed up the system, Timken in 1952 built a 3-mi.-long private road for the trucks between the two plants.

• **Keeping Tabs**—Running a plantwide delivery service is only part of the Materials Handling Dept.'s job. When it was formed, the staff was also assigned to keep track of the materials and orders handled.

The first need was storage space. Waste land around Gambrinus was filled in, leveled, and divided into several storage areas. Then the department worked out a simple system for keeping tabs.

A routine order is handled something like this: The raw materials—fresh from the steel mill, are first brought together, and either processed immediately or stored at Gambrinus. A straddle truck carries them to the plant for each processing operation. When each job is done, the materials go back to Gambrinus by truck. Ordinarily one trip does it.

Formerly, a crane fished through stacks of material to find the kind it wanted for an order; and rarely were the materials in one place. That took time; processing equipment might go idle for lack of materials. Now the materials are right on deck the instant they're needed.

• **Payoff**—The switch from the go-fish method to the present one first paid off in jackpot proportions three years ago. Timken's steel operation had an expansion, increasing its capacity by

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Even though your business may need only two stations, Teletalk can save time, steps, energy for you. A wide range of models is available. Ask your local dealer (see Yellow Pages) to suggest the ideal installation for you.

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- A textile manufacturer saves 4½ cents per unit and gets safer protection with Thilco's exclusive non-staining wrap.
- A nursery is saving 44 cents on each wrapping of rose bushes for shipment.

Important too, is that in each instance, the paper furnished also included **PRINT DECORATING** for identity and advertising.

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20%. To house parts and materials the old way, the firm would have spent an extra \$2-million (or about \$10 per sq. ft.).

The new way, however, is a fraction costlier in operation and maintenance than the old. But that doesn't bother the Timken management. It willingly approves a slightly higher budget for materials handling, to get the system's advantages.

## Lab-Made Gems

General Electric uses terrific heat, pressure to manufacture diamonds for industrial use.

Scientists at General Electric Research Laboratory in Schenectady this week showed off their latest contribution to industry: manmade diamonds. In the first heat of enthusiasm, the technique looked pretty revolutionary. But there are two hitches. First, the diamonds are not big and pretty—the largest measures just 1/16th of an inch in its longest dimension. Second, the cost of manufacture is high.

Dr. C. Guy Suits, the company's director of research, was quick to point out that "any conclusion we are about to make diamonds of a size and quality suitable for gem use is decidedly premature."

The company is not trying to get into the jewelry market, where stones must have special characteristics—size, color, crystal perfection—to be of significant value. But it is looking for products that can become valuable industrial tools—for cutting and polishing.

• **Process**—To make these stones, the research group had to produce high pressures and temperatures. Its new 1,000-ton press provided the necessary pressures—about 1,600,000 lb. psi. A specially built chamber made it possible to maintain temperatures above 5,000 F at pressures in excess of 1,500,000 psi.

When a carbonaceous compound is subjected to these pressures and temperatures, it becomes superhard in a matter of minutes. It is capable of scratching anything, including other diamonds. To prove that it had the real thing, GE put its diamonds through other tests: X-ray inspection, chemical examination, hardness tests.

• **How to Use Them**—One immediate beneficiary, if the company should be able to bring production costs down to a level that would be competitive with natural industrial diamonds, would be the company's Carbology Dept. This, says GE, would be a logical extension of its interest in hard cutting materials.

## PRODUCTION BRIEFS



Within a minute, this machine, still under development at Bell Labs, goes through 15 intricate steps in making experimental transistors. It takes a hair-thin bar of germanium or silicon, checks it for electrical characteristics. If the bar is O.K., the machine attaches wires, connects up others. Out comes a completed transistor. Finally, the machine runs it through a series of electrical tests.

Printed circuits will go into all radios supplied by Bendix Aviation Corp. to the Ford Division of Ford Motor Co. The circuits made by Bendix are photo-etched on a laminated plastic and metal board. The metal pattern that results takes the place of conventional wiring. Bendix manufactures half of Ford's six-tube receivers.

How to produce more technicians: The Soviet stepup in engineering training—54,000 graduates a year compared with our 20,000—worries industrial and government leaders. Last week in Chicago, at a conference sponsored by the Society of American Military Engineers, conferees proposed to change the picture. Their recommendations: wider draft deferment for engineering students, more state and industrial scholarships, a wider pay spread between trained scientists and less-trained workers, bringing more women into the engineering field.

General Dynamics Corp. is giving the atomic-powered submarine Nautilus, a routine overhaul before the final phases of its builder's trials. In about a week, the ship will be at sea, taking deep dives, full-power runs, and testing her torpedo armament.



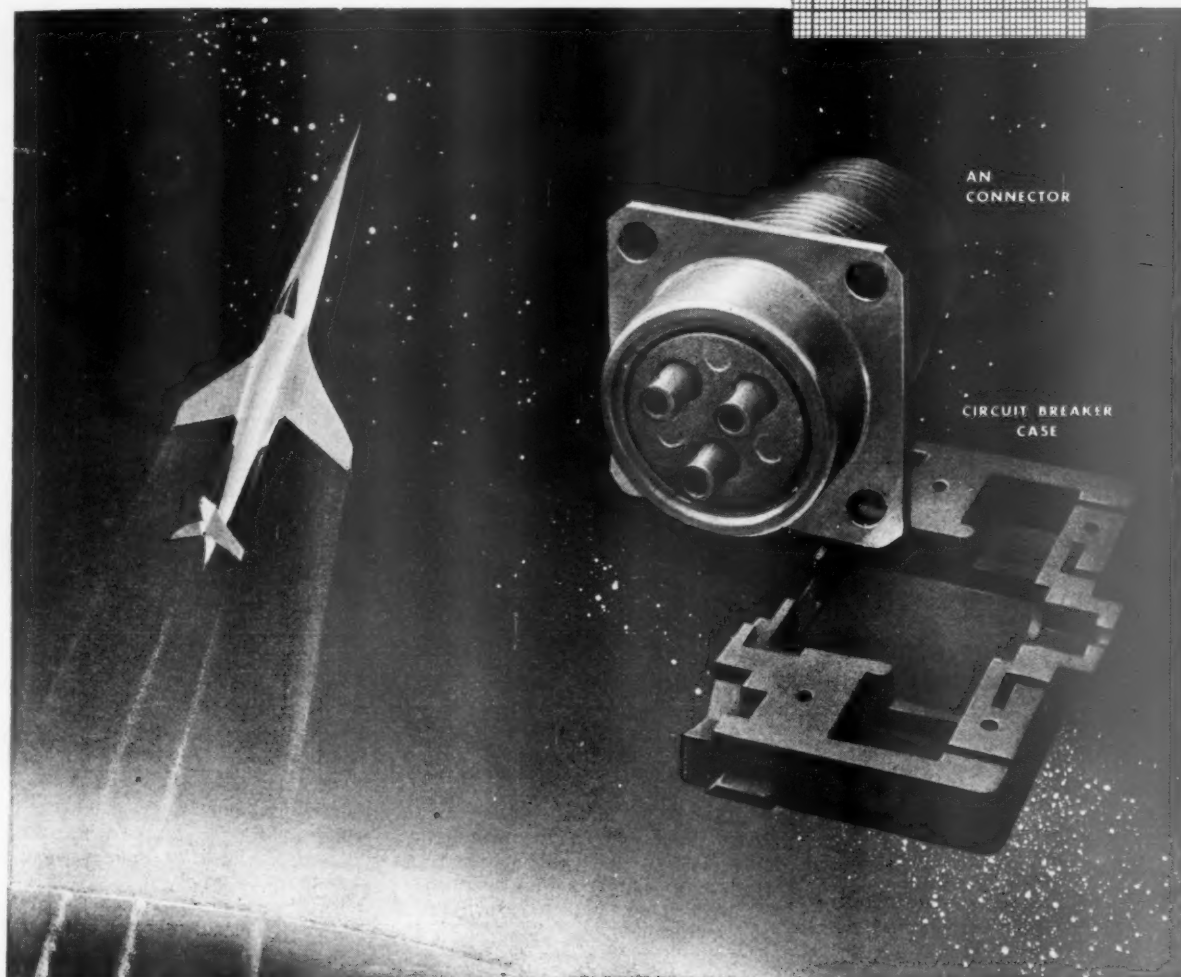
**Q.** *Could chemical research create electrical insulation to keep pace with the ever-increasing demands of hotter-flying jets?*

**A. INSULATION THAT LETS 'EM FLY HIGHER, FASTER, HOTTER!**

Another example of



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PROGRESS**



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mycalex. It's one more instance of progress for all—through G-E *chemical* progress.

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PLASTICS, says Strick Co., are the ideal materials for making truck trailers.



TRANSLUCENT plastics make good skylights. Single panels are easy to install.



STRONG as well as light, plastics make Strick's trailer floors—even structural beams.

## Why Make Trailers

Strick Co. of Philadelphia is the nation's third biggest manufacturer of truck trailers. As these pictures show, it likes to make them out of plastics.

Strick's crowning achievement so far is a refrigerator trailer, on which the company started one-a-day production this week. Strick considers this "reefer" something of a structural triumph. It has a framework and covering made entirely from Fiberglass-reinforced plastic with aluminum stiffeners. Its plastic sheet insides are said to be easy enough to clean so that food won't leave lasting odors, as well as almost completely immune to corrosion.

Strick says, too, that the trailer can take other kinds of cargo besides food. The plastic sheet is tough enough, the company says, to handle such hard and heavy materials as steel. Because of this, Strick has an idea that its reefer will become, in practice, an all-purpose trailer rather than strictly a carrier of

perishable foods. Some officials of the company foresee a time when almost all trucking will be done using such multipurpose units.

If advance orders are any indication, Strick's trailer should be a success. Its plastic construction makes it about one-fifth lighter than a comparable standard trailer, and also allows for about 160 cu. ft. more space inside without any change in outside dimensions. The company figures that if a trucking outfit put this added space to use in only a third of its jobs, the saving might amount to \$5,000 per trailer per year.

• **Excursions**—The plastic trailer is the latest of Strick's ventures in the field of plastic parts for trailers. The first, some 10 years ago, was a trailer with a clear plastic skin on a metal framework (right-hand picture, above). The company has made some 300 of these since then; but because the clear plastic turned the trailer into a hothouse, all but the first



SEE THROUGH: First with plastic-skinned vans, Strick now has another answer to the question . . .

## Out of Plastics?

have been made of cloudy plastic.

Another of Strick's specialties has been the plastic skylight—a clear plastic panel that can be substituted for a metal roofing section, thus brightening a trailer's front end.

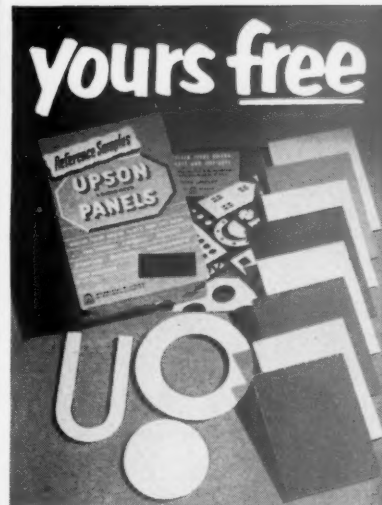
• **Lawful Limits**—Strick's new plastic trailer strikes at two of the toughest problems that bedevil truckers: the problems of size and weight.

State ordinances limit both the physical dimensions and the weight of trailers. Hence, the van designer's problem is something like that of an aircraft engineer: Given a certain weight and size, he must build the cargo carrier that will haul the biggest possible payload. He must save space on the inside, for he isn't allowed to make his unit any larger on the outside. This means thinner walls and floors, and a search for lighter, stronger materials from which to make them.

The search for a thin, light, tough,

corrosion-resisting substitute for the metal panels used in trailer walls and roofs began at Strick during World War II. Conventional materials then were hard to get and sometimes of poor quality. At about the same time that Strick engineers began to look around, the Army had worked out a way to use Fiberglas-reinforced clear plastics in observation bubbles and radomes on aircraft. The material seemed to be just what Strick wanted, and the company began work on research that eventually led to its first plastic body trailer.

• **Process**—A Fiberglas-plastic panel resembles a piece of plywood in construction. It consists of a mat of Fiberglas that has been impregnated with plastic resin, compressed under high pressure, and treated until the resins are "cured"—until they have set and hardened. Inside the panel, the strands of Fiberglas lie layer on layer much like wooden panels in plywood. It is this laminated



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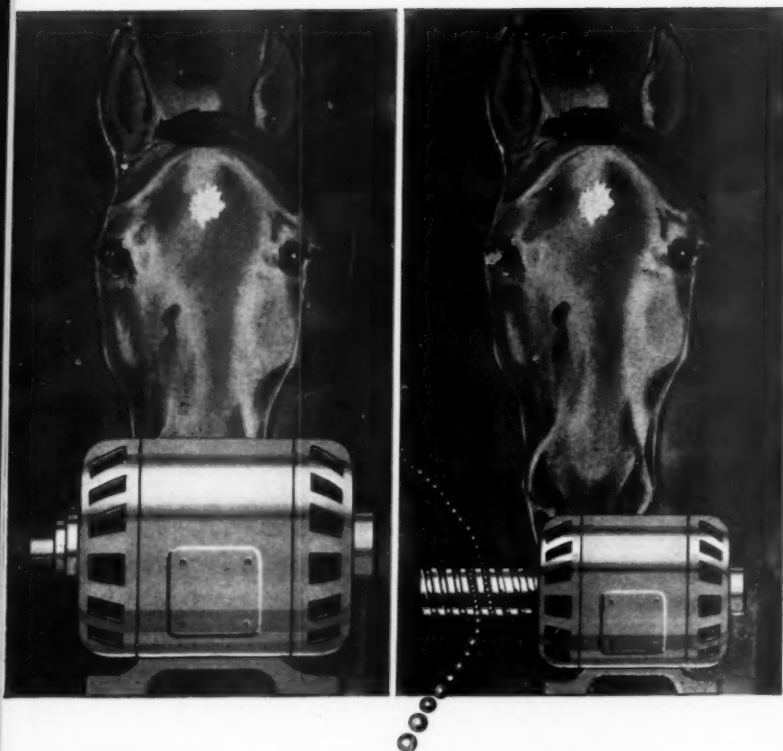
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construction that gives the reinforced plastic its strength.

In theory, the process is simple. In practice, though, it can get tricky. The idea of Fibreglas-reinforced plastics has been around for over a decade; but the correct use of resins, the proper curing time, the precise control of quality from one batch to another, are all still largely matters of trial and error. Strick engineers have had to go it alone in developing their materials.

• **Reefer**—Work on the reefer began about a year and a half ago, at the request of a large West Coast trucker. The customer had recently bought some conventional refrigerator cars to take care of growing shipments of fresh and frozen foods. He wanted to know if Strick could build a reefer that would provide adequate insulation for all foods, and at the same time be spacious enough and tough enough to carry loads of heavy nonperishables such as steel scrap or auto batteries.

A conventional refrigerator van is usually made from a regular trailer. Wooden spacers are added all around the inside of the trailer; the space is packed with insulating material, and an inner covering of plywood is bolted to the spacers. The trailer's floor often has to be covered with as much as 6 in. of insulation, plus plywood. In some vans, this represents a loss of around 200 cu. ft. of shipping space. That's equivalent to some 4000 lb. of payload.

• **Ideas**—One way to save precious inches, Strick thought, would be to add the insulation below the floor rather than on top of it. The main drawback here is the fact that floor frames of conventional vans are made of metal. They have a sort of radiator action that carries heat into the van from the outside. Below-floor insulation would not protect food from this heat.

To lick the problem, Strick decided to build the whole trailer of nonconducting reinforced plastic—walls, top, inner sheathing, floor frame, and all. Fibreglas sheeting is extremely strong; it's capable of carrying heavy loads if it is kept rigid. To keep the floor cross-pieces and wall supporting posts from bending and giving, Strick devised a structural beam consisting of a sheet of plastic with aluminum stiffeners riveted to each edge. The aluminum edges not only keep the sheet from flexing; they also provide convenient surfaces on which to rivet the floor and wall cover sheeting.

• **Troubles**—It is one thing to use plastic panels as substitutes for metal ones in wall and ceiling construction. But it's another thing to use plastic sheet in a structural, load-bearing framework. Strick has done just this in its new reefer. Because reinforced plastic is a laminate, it doesn't react to stress in the

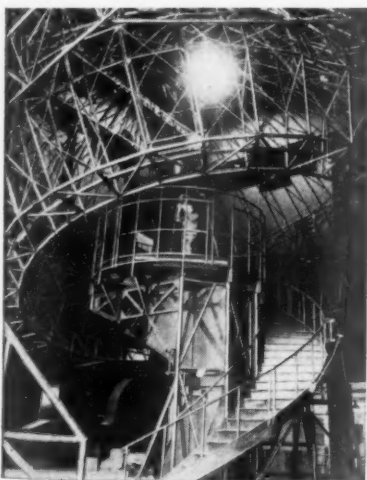


same way as a homogeneous material such as iron, steel, or aluminum. The strength of the material depends upon the compactness of the Fiberglas and resin mixture. Anything that breaks the fibers away from one another tends to weaken the plastic.

Strick discovered that if a conventional punch press were used to make rivet holes in the plastic panels, the punch had a tendency to separate fiber layers. This would make a weak joint—one that might eventually fail. So the engineers designed a special press. The new unit pushes the material apart enough to make a hole. But doesn't disturb the plastic's layers.

Load-bearing joints between wall posts and floor crosspieces gave trouble for the same reason. If too much force is applied to a rivet, it acts like a punch press, begins to loosen the layer construction. To combat this, Strick designed special patterns of rivets at critical joints. These distribute the stresses so that the plastic holds together.

Separately, none of the reefer's framework subassemblies could carry a big load. The van's strength comes from its rigid box-like construction, in which each assembly supplements the other: The roof helps to keep the walls from buckling; and the walls, acting like wide, thin beams, help to support the loaded floor. When the frame and outer skin have been completed, and the insulation has been packed in place, a corrugated inner layer of plastic sheeting is added (picture, page 66). The corrugated design allows free flow of air all around the van's contents and insures even refrigeration.



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## NEW PRODUCTS



### Lighter Weight Trucks

By replacing plate steel with the diamond-shaped expanded metal in this truck bed, Morrison Steel Co., New Brunswick, N. J., says that it is able to reduce the vehicle's weight by two tons. The company uses a 4-lb.-psi. grating on the bed; the grating is produced by Wheeling Corrugating Co.

• Source: Wheeling Corrugating Co., Wheeling, W. Va.



### Next Question, Please

Remington Rand Inc. says that this magnetic memory will help air-traffic control centers to keep track of weather conditions, departure times, fuel loads. It's a bigger, more versatile unit than one developed by RemRand for American Airlines (BW-Jan.29'55,p48).

• Source: Engineering Research Associates Div., Remington Rand Inc., 1902 W. Minnehaha Ave., St. Paul 4, Minn.



### Versatile Hole Punch

To save time and trim costs in electronics manufacturing, Radio Corp. of America is set to turn out a new line of automated production equipment. The punching machine shown above is the forerunner. It is instructed by a glass-based cloth tape, which can make it punch almost any pattern of holes for components in electronic printed-circuit panels. Cost: About \$14,500.

• Source: Radio Corp. of America, 30 Rockefeller Plaza, New York 20.



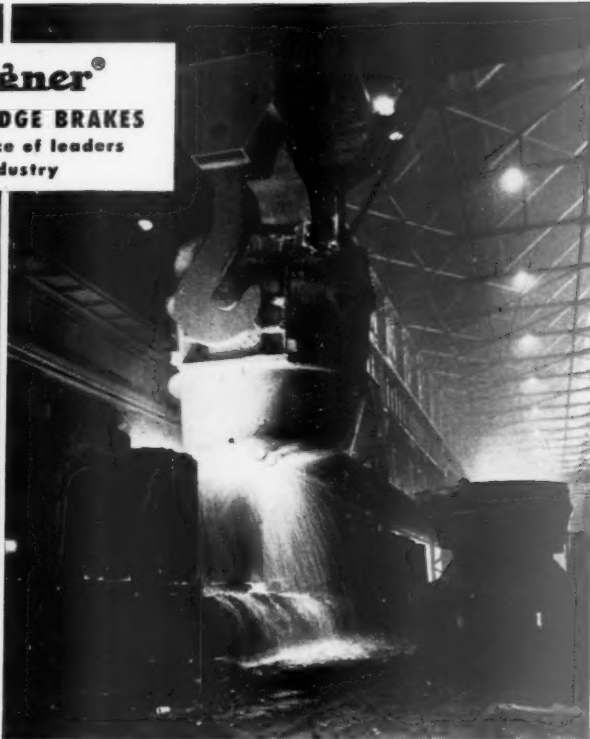
### Portable X-Rayer

About a year ago, the Argonne National Laboratory of the Atomic Energy Commission announced that it had developed an X-ray machine that would work from a tiny particle of radioactive thulium (BW-Apr.24'54,p88). Now a version of that machine is commercially available.

The producer, Litton Industries, says the machine is for use where present-day X-ray equipment would be impractical: at scenes of accidents, in ambulances, in homes of patients, in forward



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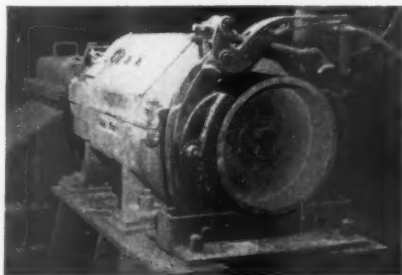
**EFFICIENT**... Wagner Crane Bridge Brakes allow close spot-

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combat zones, or for inspection of difficult-access areas in commercial products.

Its advantages: It needs no external source of power, as a regular X-ray unit does. Also, it is small—fits inside a hat box—and weighs less than 20 lb.

• Source: Litton Industries, 336 N. Foothill Rd., Beverly Hills, Calif.

### NEW PRODUCTS BRIEFS

**Automation for the small office:** IBM's new Cardtype accounting machine needs just one operator to handle a master electric typewriter, three "slave" typewriters, an electronic punchcard reader, a computer, and a machine that makes punch cards or tapes.

**A new insecticide,** said to be tougher on insects but less toxic to humans than DDT, has been developed at the Savannah (Ga.) laboratory of the U.S. Public Health Service. In one fly-killing test, eight grams of the chemical did the job; with DDT, say the scientists, it would have taken 10,000 grams.

**A lightweight plastic** that has a cell structure like wood was announced last week by Bakelite Co., a division of Union Carbide & Carbon Corp., New York. It is a foamlike plastic, intended to do such things as reinforce boat hulls, insulate air conditioners, stiffen airplane wings.

**Make your own window screens:** American Screen Products Co., 807 N.W. 20th St., Miami, Fla., is producing a kit of materials—aluminum frames and Fiberglas screen cloth—for the man who wants to do the job himself. It will be in hardware stores this spring.

**A machine that heat-seals cellophane bags** and applies a zipper string to the closure was announced last week by the Boston Packaging Machinery Co., Inc., 215 Turnpike St., Canton, Mass.

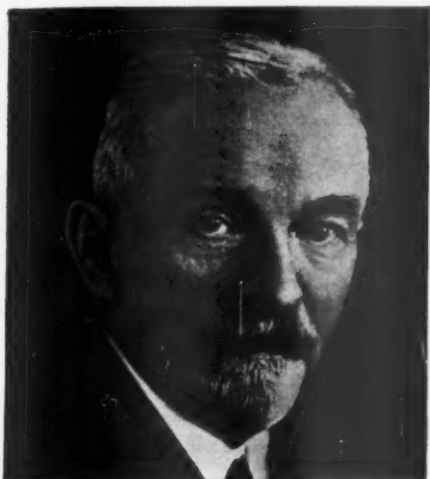
**An electric thermometer** that gives instant temperature readings at the push of a button has been introduced by the Victory Engineering Corp., Union, N. J. It was developed for operations where frequent checks must be made: refrigerators, hot houses, freight cars. Cost: \$89.50.

**Ford Motor Co.** said last week it is producing four models of a lightweight farm combine that will harvest most combinable crops in the U.S. They are the first to carry the company's name; in the past, Ford combines were sold under the name of its subsidiary, Wood Brothers, Inc., Des Moines.



# What does "PERMUTIT" mean?

**T**HIS is Robert Gans . . . About 50 years ago he discovered a new, simple method of softening hard water and coined, for the process, the trade name "PERMUTIT"

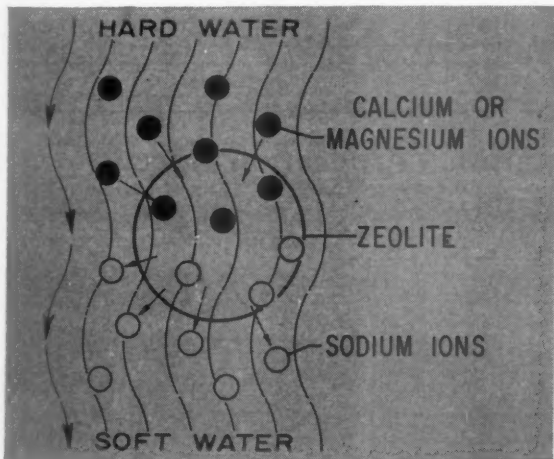


Robert Gans

(rhymes with "compute it"), derived from a Latin verb meaning "to interchange."

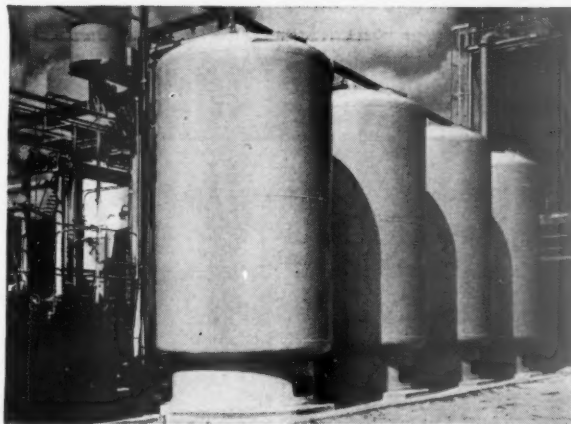
## Here's how it works...

Gans found that certain zeolites (insoluble, granular materials) would take the hardening mineral elements, calcium and magnesium ions, out of the water and exchange sodium ions in their place. He also found that the zeolite or "ion exchanger" could be used over and over by simply regenerating it with a solution of common salt.



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Compact, automatic PERMUTIT softeners bring soft-water luxury to thousands of homes. Soft water washes clothes cleaner, saves soap and prevents scale in heaters and piping.

## New, broader uses...

Water treatment is now only one of many uses of PERMUTIT ion exchange equipment. Other applications include—removing impurities from foods or drugs, recovering metals from plating baths, separating rare metals from ores . . . and many others. If ion exchange might solve *your* problems, write: The Permutit Company, Dept. BW-2, 330 West 42nd St., New York 36, N. Y.

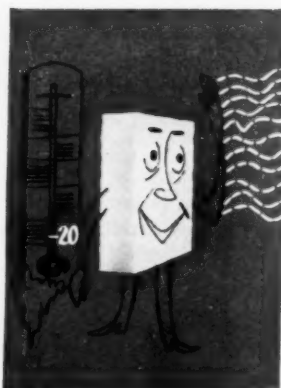
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# PERMUTIT

Rhymes with "Compute it"

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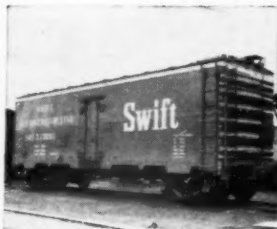


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STYROFOAM	✓ Permanently Low. Avg. 0.25	✓ Remains Dry and As- sures Constant "K" Factor	✓ Highest Strength- Weight Ratio of Any Insulation
INSULATION A		✓	✓
INSULATION B	✓		
INSULATION C	✓		✓

General American Transportation Corporation selects  
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When this leading company planned the building of new refrigerator cars they looked for an economical, lightweight insulation that would assure long service life through permanent moisture, mold and rot resistance. Styrofoam (Dow expanded polystyrene) was the perfect answer.

Installation proved fast and economical because Styrofoam is light, clean, easy to handle and can be fabricated with ordinary tools. Hundreds of these cars are used by Swift and Company and other hundreds as GATX General Service Lease Cars.



Above: One of the refrigerator cars made by General American Transportation Corporation for use by Swift and Company.

Right: This interior view shows Styrofoam installed on the floor of a refrigerator car.



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✓			✓
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# MANAGEMENT



**THE BOSS** wants to force resignation of his industrial relations chief, a . . .



**FAILURE** who collapses under the pressure of his hard-riding, bright young . . .



**SUCCESSOR,** who doesn't relish his new role, but is drawn into fracas.

## How People See Businessmen

The pictures above show the three main characters in a highly successful television drama—so successful last week, the Kraft Theater restaged it over NBC's television network.

The play, an original called *Patterns*, concerns businessmen and their lives as executives. Its first telecast made such a stir that Kraft decided to repeat it.

The plot is simple. A domineering president attempts to force the resignation of a senior executive with 24 years of service. This executive is running out of steam and, as industrial relations chief, is in basic conflict with the personnel policies of the hard-bitten boss. To oust him, the president hires a bright young man who—reluctantly but almost inevitably—accepts his role and the moral wrong that it involves. The executive, pressed too far, suffers a heart attack and dies.

The adjustment—or lack of it—of these individuals to their parts in the corporation is the meat of the drama.

• **Conclusions**—Anyone seeing the show—a classic piece of TV craftsmanship—could draw several conclusions:

• There is something fascinating about the inner workings of a corporation—and the general public more and more is getting a closeup of it through the eyes of novelists, the legitimate theater, movies, and now TV (BW—Jun. 5 '54, p68). Apparently, there's a market for the business drama.

• The writer, viewing business as a setting for his art, has to emphasize the conflict between (1) the individual and his ambitions and (2) the corporate system of which he's a part. It's in this kind of conflict that the drama lies.

• If such stories continue to catch the public's fancy, businessmen and corporations are going to be better known than ever before. The catch is, they may become known in a way

they don't want. TV's *Patterns* leaves the impression that you have to be ruthless to be successful. The needs of the corporation, the play implies, run counter to human values.

• **Attack on Reputation**—Most personnel men, top-flight executives, and students of modern management would quarrel with this implication. But such a portrayal—if it becomes widespread—could have an important effect on the reputation of businessmen. It might force management, and particularly the impersonal corporation we know today, to justify itself once again in the eyes of the community—not economically, but socially.

Such justification wouldn't be new. It has been going on ever since the early 19th Century.

That's the conclusion of Sigmund Diamond, author of *The Reputation of the American Businessman* (Harvard Press, \$4). Recently published, the book was written in cooperation with Harvard's Research Center in Entrepreneurial History.

The book takes a look at six giants of American industry. The first, Stephen Girard, has been described as America's first millionaire; the last is Henry Ford. In between come John Jacob Astor, Cornelius Vanderbilt, J. P. Morgan, the elder, and John D. Rockefeller.

• **Findings**—Diamond's approach probably is unique. He established the reputations of these men during their time by extensive searching of newspaper files and especially the treatment accorded them in their obituaries.

Briefly, here is the pattern he draws:

The American public of the early 19th Century looked upon the successful businessman—or entrepreneur—as a person with uncommon traits who reached the heights of his opulence by force of character. Interest in him was

limited to those personal qualities that made him successful.

As Diamond puts it, "The source of success . . . is conceived as lying in personal qualities; character determines destiny. So long as he has the requisite qualities, success will be his at any time, in any place, under any circumstances."

• **New Criteria**—The public's reaction to the successful businessman was based not on his activities as a businessman, but on what he did with his money—especially after he died. A generous giver was likely to get a good press regardless of how he made his money.

Slowly there began to build up more and more outspoken antagonism—with the revolutionary air of 1848 as a stimulus—against the businessman because of the way he built his fortune. By the start of the 20th Century, his reputation in the press depended on a new set of criteria.

• The "business enterprise itself, not its byproduct in the form of philanthropy," became the basis for 20th Century evaluation.

• His activities outside business became part of any analysis of his status in society.

• Personal traits became less significant in newspaper attempts to explain how businessmen rose to success. Of far greater concern was the system in which he operated—free American enterprise—which permitted such success. In other circumstances, it was often pointed out, success would be impossible—regardless of character.

This shift in values is now complete, according to Diamond. Today, the role of the businessman is completely identified with our economic system. His success could not exist, as the 19th Century assumed, anytime, anywhere.

• **Behind the Shift**—There is logic be-





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**"... 'totally repudiated was the notion that either philanthropy or business activity itself was beneficial to society' ..."**

STORY starts on p. 76

hind this development. According to Diamond, it reflects the shift from a predominantly agricultural society to one where the foundation of our socioeconomic system is industry and the corporation. In such a society there's more truth than political bobbling in the argument that what's good for General Motors is good for the country. Since the corporation and the way it functions in a free economy create an arena for the businessman to exercise his talents, the successful executive embodies the characteristics of the nation as a whole.

• **Case in Hand**—In his book, Diamond supports his theories by calling upon newspaper evidence.

Take Girard, the banker, who died in 1831 during an influenza epidemic in Philadelphia. For those days, Girard had attained phenomenal wealth—perhaps \$15-million. Newspapers devoted column upon column to his will, a generous one that left much to the city of Philadelphia.

How had he gained such success, and what was his reputation? One columnist summed up how his contemporaries felt: "The architect of his own fortunes, he has reared a durable monument to his fame in the benefactions he has bequeathed to posterity."

• **Second Thought**—John Jacob Astor, the trader, was evaluated in much the same manner, but with different results. Astor died in 1848, leaving a vast fortune.

Again, it was his personal habits that provided success—"the steady application of more than common powers of intellect," according to the New York Evening Post.

But when it was revealed that Astor's will left only a pittance to New York, he was attacked. He was excoriated by Walt Whitman, James Gordon Bennett, and others. For the first time, a change in basic attitudes showed. Claims that his wealth was accumulated by his own greatness were disputed. Circumstances and his methods of doing business, especially in real estate, were credited.

Commodore Vanderbilt, the railroad magnate, died in 1877. His reputation, too, was built on personal character. Boards of directors of all the railroads eulogized him as "the creator, not the creature, of the circumstances which he molded to his purposes."

But, as in the case of Astor before him, doubts cropped up. The Irish World and the conservative publication The Nation attacked him as a swindler,

protected by government, and as an exploiter of labor.

Still, some of the criticism might have abated if his will had been more philanthropic. It did not leave "one poor dollar of his fifty or sixty millions to any municipal or charitable purpose."

• **Shift in Emphasis**—It was with Vanderbilt, however, that the pattern began to change, and there were signs of a shift in the values that determine a businessman's reputation.

The switch came as a defense of the Commodore's parsimony. Leslie's Illustrated Newspaper is quoted as saying, "The charity of a Peabody or a Peter Cooper is grand, but an Astor, a Stewart, a Vanderbilt... is a blessing in another sense; for each gives honorable remunerative and permanent employment to an army of men and women. This is greater service..."

This, says Diamond, was the first tentative step toward transmuting the reputation of the businessman from personal glory to "a justification of a social order."

• **"Evil System"**—The new values were fully evident by the time of Morgan. When he died in 1913, the press both lauded and attacked him. But either way, it attributed his success as largely due to the opportunities the country gave him and made him representative of a system and a way of life. Those who blasted Morgan did so, not for his lack of generosity or because of his business practices, but because he built his fortune on what the writers considered an evil system.

Speaking of Morgan's critics, Diamond says: "Totally repudiated was the notion that either posthumous philanthropy or business activity itself was beneficial to society."

• **New Standards**—This touched off the drive, partly captained by publicist Ivy Lee (considered the father of modern public relations), to establish the reputation of businessmen in a much broader context. Rockefeller died in 1937. He was attacked as a monopolist and by the more radical elements as the product of a system that breeds misery. His reputation, in defense, was shored up by his great, and widely publicized, philanthropies.

More important, perhaps, was the explanation of his business practices, which newspapers generally accepted as being "normal for his period" and not to be judged by 1937 standards.

• **Formula for Success**—Diamond also finds something new in the press's evaluation of Henry Ford. He was depicted

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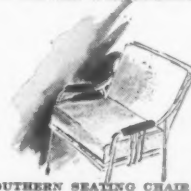
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# Rockwell Report



by W. F. ROCKWELL, JR.

President

Rockwell Manufacturing Company

THERE ARE DISTINCT ADVANTAGES, we believe, in a broad program of diversification and decentralization. But at the same time there are problems; two of which are concerned with effective communication.

The first is that of selecting and transmitting information to and from scattered plants to keep management informed, and at the same time encourage plant managers to make their own decisions. The second problem is that of developing a staff of men competent to produce and sell our diversified line, and to handle, within the shortest possible time, any new product the company may acquire or create.

In working out our own solutions, undoubtedly we do many of the same things other companies do. But there may be differences in the degree to which we do them. For instance, our whole communications program is based on a policy of near-total disclosure of operating information to a rather wide group of management, production and sales personnel. Much of the data we disclose to improve management efficiency would, in most firms, probably be restricted to the executive board or board of directors.

Another difference may be that we use more kinds of communications media than most companies. We do this because we believe that communications, like any product intended for human consumption, must be merchandised. We present information in an attractive package, and so edited that it requires a minimum of reading time.

There are several indications that this method is effective for us. Among the men who run our 19 plants in different communities, and sell our products to 15 major markets, there is a good "working together" feeling in spite of wide differences in geography, backgrounds and responsibilities. When vacancies occur at department head or executive levels, there are always men within our own organization prepared to move up. And our diversification program is achieving its central purpose: security of earnings, jobs, and dividends.

For a number of years we have been operating one of the highest temperature steam generating units in the country. At our subsidiary, Edward Valves, we've been testing valves and valve materials at steam pressures above 5000 pounds at temperatures as high as 1300° F. This research and development effort is paying off now that higher steam pressures and temperatures (up to 4500 pounds at 1150° F.) are so much in the news. Rockwell-Edward valves are tested and ready for these more drastic high-temperature, high-pressure services.

These reports are intended primarily for United States consumption, but not infrequently we receive evidence that they are read abroad as well. For instance, in discussing the background of our International Department manager (whose former responsibilities had been in London) we were very pleasantly surprised to discover that he had come to know of our company through reading "Rockwell Reports." His desire to be associated with us (he was also in contact with two other very well-known companies) was based on what he read there.

"School Shops for Today and Tomorrow" is the title of a new 42-page book on school workshop planning published by our Delta Power Tool Division as an aid to schools in meeting sharply increasing enrollment. The book includes 25 winning plans chosen by five American school leaders in an international school shop planning contest sponsored by Delta. As far as we know, it is the only existing compilation of plans that concur with current professional thinking on this important phase of school planning. It is being offered to school people at a nominal price.

One of a series of informal reports on the operations and growth of the  
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for its customers, suppliers, employees, stockholders, and other friends



as a simple man, to whom success came without desire. Like others of the 20th Century, it was more than his personal attributes that made his success possible—it was the system. But with Ford, there was a refinement. Success is made possible by the system, yet not everyone can be a Ford with his genius.

Analyzing this, the author interprets the contemporary press as saying that you can achieve success only through the American system; but if you fail it isn't the system's fault, it's yours.

• **New Arena**—In a way, this was the arena—man and his relation to the business system—that last week's TV show, *Patterns*, probed. It was attempting to explain both success and failure in business—what's needed to build a business reputation.

It may represent a departure from the trend Diamond sees in his book. The reputation of businessmen moved—partly through conscious efforts of men like Ivy Lee—out of the arena of business dealings into the realm of society generally.

Now that the corporation, more than any other institution, represents society itself, its ethics and its characters may be in for close scrutiny as a way of life—not as a social phenomenon.

## MANAGEMENT BRIEFS

Elgin National Watch Co., diversifying still further into miniature electronic equipment and automatic production instruments, has bought American Microphone Co., Pasadena (Calif.) maker of components for communication equipment. AMC will be a division of Elgin-Neomatic, Inc., which was formed through another Elgin acquisition in the field just four months ago.

Depreciation policies are being changed to take advantage of fast write-off provisions in the new tax law (BW-Jan. 22'55,p98) by only half of 167 companies surveyed by the National Industrial Conference Board. The aim of the new law was said to be to help plant expansion. But most of the companies that are changing said their capital spending would be more toward turning out more products, improving technology, and piling up ready cash.

More spreading out: Borden Co.'s Chemical Div. has bought American Monomer Corp. and Monomer-Polymer, Inc., in line with its expansion of production in thermoplastic and thermosetting materials. Both the newly bought companies are in Leominster, Mass., and specialize in research and production in this chemical field.

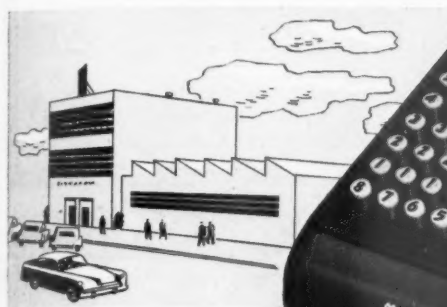


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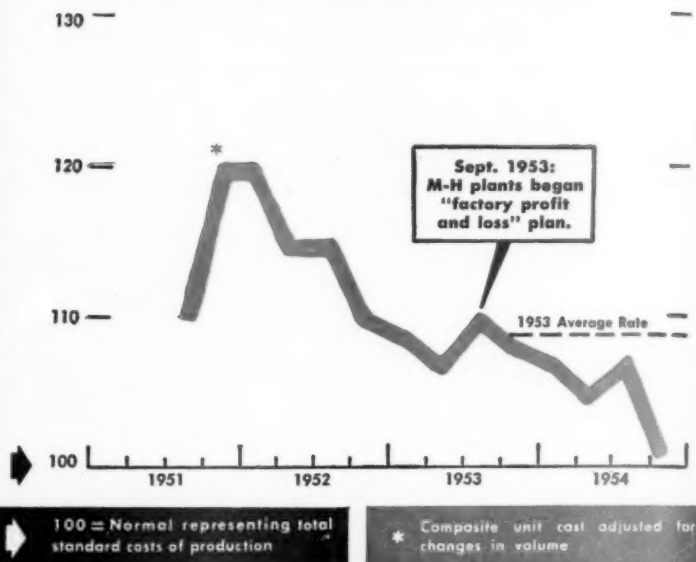


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## CUTTING COSTS: Same Dog, New Tricks

Minneapolis-Honeywell's index of factory cost-cutting for three plants



## Escaping From a Profit Squeeze

With labor and materials costs moving up, and product prices either standing firm or moving down, more and more businesses today have welts where they hurt most—in the profit margin.

One Midwestern manufacturing manager groans: "Before, we could pass on all or part of the wage and materials cost increases to our customers. Now, competition is too sharp for that."

It's this cost inflation (BW—Jan. 15 '55, p27) that is turning all eyes to the factory. Companies agree that the only way to get profit margins back to normal—aside from drumming up more business—is to make drastic cuts in production expense (BW—Jan. 29 '55, p32).

The chart above shows what happened to costs when Minneapolis-Honeywell Regulator Co. set up a high-voltage program aimed at pulling them down. The program went into effect in late 1953. Since then, the company's costs have dropped steadily.

• **The Barrels**—The company did not achieve this by the traditional method: sending men down into the factory to poke into scrap barrels, turn off lights, and reorganize purchasing operations. Results of that method are likely to be like trying to put out a fire in a sawdust heap: You throw on a little water; the fire appears to go out. You

turn away, and it blazes up again, burning into profit margin.

But there are ways of putting out the fire for good. The main thing is to get people working with you so that you can safely turn your back without feeling that trouble will spring up again behind you. Both Minneapolis-Honeywell and a fellow cost-cutter—Dobackmun Co.—have done this with enviable success. Cost-consciousness in both of them is established firm right down at the factory level. Here are the stories of how they did it.

### I. Factory Profit

Minneapolis-Honeywell gave some 8,000 of its AFL production workers a 7¢ hourly wage boost this month. Union bosses told members that one reason for this lay in the union's own campaign against waste and needless scrap in the plants.

M-H's management won't go all the way down the line with that argument. There were other factors, the management says. But it is a fact M-H has been carrying on an effective cost-pruning operation in its plants—an operation that has now brought factory outlay to the lowest level in recent M-H history (chart).

• **Prices**—Honeywell is a major producer of heat and temperature controls. In 1953, the last year fully reported, the

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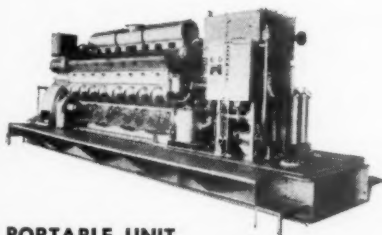
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- Complete self-operation can be provided
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**FRESH AIR DESIGN.** That startling building is a *parking* garage. The walls are made from over 11 miles of USS Stainless Steel strand held tight under 1,000 lbs. tension with American Quality Springs. The strand prevents cars from rolling overboard, and makes this garage one of the most beautiful buildings in Chicago.



This trade-mark is your guide to quality steel

TOMORR  
the South  
Slag—a l  
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WHAT?  
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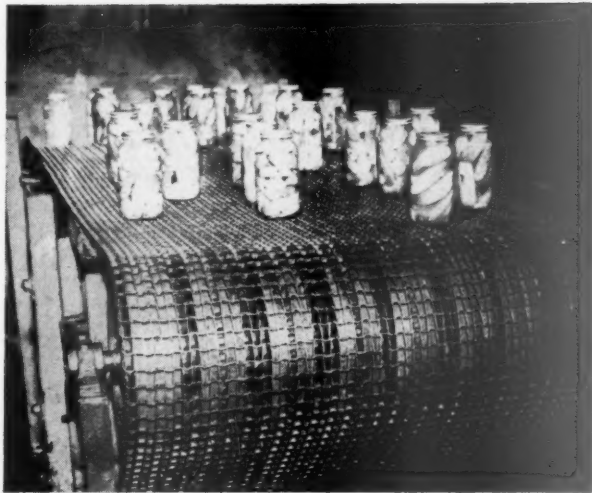
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# can do so many jobs so well



**TOMORROW'S SIRLOIN STEAK** needs a square meal today. In the South, many farmers treat their pastures with USS Basic Slag—a by-product of U. S. Steel's southern steel making process. Basic Slag encourages the growth of thick, rich pasture grass.



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**GOING, GOING,** but not gone are the wonderful old steam locomotives that raise the wanderlust in every child. About one third of all the locomotives in this nation are still powered by steam, and a high percentage of them rely on USS National Seamless Boiler Tubes. The tubes are pierced from solid billets of steel. They frequently last for half a million miles of operation.

**SEE The United States Steel Hour.** It's a full-hour TV program presented every other week by United States Steel. Consult your local newspaper for time and station.

## UNITED STATES STEEL

For further information on any product mentioned in this advertisement, write United States Steel, 525 William Penn Place, Pittsburgh, Pa.

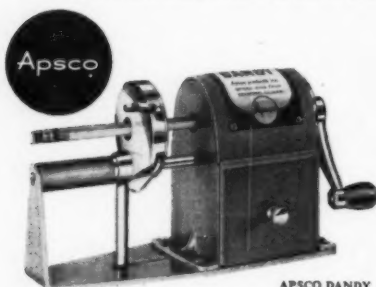
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company did a \$214-million business on which it netted some \$10.3-million. Business for the first nine months of 1954 ran ahead of 1953, and so did profits before taxes. But as a percentage of sales, profits were going down because of rising costs.

The concentrated attack on this trend was launched by Stanley J. Nelson, factory manager for domestic M-H products and ordnance. He decided he and his foremen needed a closer and faster check on production costs.

One of the sharpest pruning hooks he and his team seized was a factory profit-and-loss sheet, put to work with the help of company accountants in September, 1953. Through this built-in cost-flagging system, each superintendent and foreman gets a weekly tally that tells whether his group is hewing to the cost line or "losing" money.

By the time foremen in most other companies' plants see the cost accounting figures, they're old history—too old to do much about. Besides, most such reports come swathed in financial gobbledegook, meaningless to most non-accountants.

Knowing this, M-H wanted a cost accounting report that—in simple, appropriate terms—spotlighted the soft spots. More, M-H wanted such information to reach line management's hands fast.

• **Team**—For rapid financial fact-gathering, M-H set up a team of factory cost accountants. They record every day's production. Multiplying that by the selling prices of the day's product mix, they come up with a "factory income" statement.

Then they itemize every penny spent in the factory on such things as materials, labor, and overhead. They subtract these costs from the day's "income," ending up with a daily "factory profit and loss" sheet. By looking at his daily "profit" at the bottom of the page, a production man can judge how well his line has done.

Every week, each foreman gets a sheet telling him what his line did the previous week. The sheet helps him bird-dog trouble while the scent is still hot.

• **Standard**—Ordinarily, factories aren't measured in terms of sales income. Usually, their benchmark is a standard cost. But a factory can meet this standard cost and still not be making enough money, for sales prices may drop or materials costs shoot up. Hence, it makes sense to gear factory costs to sales prices.

If the factory "profit margin" is below what is considered large enough, foremen know right away that the trouble is (1) low volume, (2) high production costs, or (3) a drop in selling prices.

If the trouble is volume—and manage-

ment can't up its schedules because of inventory or sales problems—then costs have to be cut quickly to keep the proper margin. M-H's factory profit-and-loss sheets help show in detail where the trimming can be done. If the trouble is price, cost-trimming may be the only way out.

• **Future**—This factory profit system is also designed to give solid base for projections. A monthly planning report is put together by the foremen, with assistance from the accountants. Estimates are made for the costs of direct and indirect labor, methods engineering, new products, purchasing, personnel, and everything that will cost money in the factory area. The weekly statements on profit and loss that the foremen get can then be matched against this monthly plan of production, which factory boss Nelson calls "factory sales."

These projections are solid enough to serve as a firm base upon which Nelson can build a yearly estimate. In December, 1954, he told his boss, manufacturing vice-president James H. Binger, what the factories could do in 1955. And he was able to factor in wage increases, such as the one just given; product price declines; raw materials—everything.

In addition to this monthly and yearly projection and the weekly profit-and-loss review, a monthly profit-and-loss review is held on a division-wide basis. A further sophistication is a daily report in dollars and cents on labor charges. This is sent to each foreman so that he can keep tabs on this cost—biggest variable factory expense, accounting for about half of all production cost.

• **The Rest**—Naturally, there's more to Nelson's cost-cutting program than the profit-and-loss plan alone. M-H has new capital equipment, new purchasing ideas, and a horde of methods engineers constantly chipping away at cost. The production index on page 82 shows how well all this works.

Generalizing, Nelson says it's the change in cost philosophy that counts. The secret lies in constantly showing men on the line what costs do to margins.

## II. A Profit Manager

Dobeckmun Co. of Cleveland (BW-Dec.18'54,p100) is a \$30-million-a-year converter of cellophane, film, plastic, and paper into printed or decorated bags and containers for food, drugs, textiles, and other products.

Its cost problems began in 1952, the year cellophane, Dobeckmun's principal material, became widely available. That year, "back yard" bag makers cut prices all over the lot. They undercut big converters such as Dobeckmun to the

# RONSON ANNOUNCES !!!

## New Electric Shaver with Amazing Flexible Head

### *Flexible to follow every contour of your face!*

Because the Ronson shaver has a flexible rounded steel head, it hugs the smooth, flat areas of your beard, and closely fits all those curved places around your nose and chin...you'll marvel how quickly the whiskers disappear! No matter how tough your beard, or how tender your face...shaving with the new Ronson is actually a pleasure!

### *Micro-thin for the closest shave you've ever had!*

It's simple logic that no ordinary electric shaver can shave you any closer than the thickness of the head. The flexible Ronson head is actually  $2\frac{1}{2}$  times thinner than a razor blade...allowing the cutting edges to get closer to the base of your whiskers. Comfort plus closeness add up to the perfect shave every time.



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## Looking for a new plant site?



### ROBERTSHAW-FULTON CONTROLS CO.

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"With the demand for Grayson controls greater than ever, additional production area and facilities were absolutely needed. We needed off-street parking for approximately 1,000 employees, and we wanted ample room for further plant expansion. We considered it highly important to be located in, and identified with, a healthy, growing industrial community.

"We chose a site in Long Beach because it offered these advantages, and more. Here we are well located in relation to a great many of our customers and suppliers. We will continue to have adequate utility services and complete shipping facilities. A network of fast highways is at our doorstep. We believe we found an ideal location."

T. J. Arden, Exec. Vice President  
ROBERTSHAW-FULTON CONTROLS COMPANY

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The rapid industrial growth of the Long Beach area has paralleled the development of the debt-free Long Beach Harbor, today recognized as America's most modern port.

The wharves, transit sheds and shipside warehouses are all of fireproof steel and concrete construction. Huge canopies over the rail and truck loading platforms permit all-weather operations. Underground utilities give added convenience and all areas are floodlighted for night-time activities. Wide streets prevent congestion. Deep water channels take any ship afloat — lighters are never necessary. The incinerator helps keep us ship-shape ashore.

There are many other reasons for locating your new plant in the Long Beach Harbor area. Included are rich market area, large labor pool, lowest electric rates, cheap gas, abundant water supply, profit-making climate, better living, low taxes, available raw materials, transportation savings and economic stability.

Free Brochures: *Industrial Long Beach & The Port of Long Beach*

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200 East Ocean Boulevard, Long Beach 2, California

**"... most obvious proof is the increased consciousness of everybody of the possibilities for cutting costs ..."**

**PROFIT SQUEEZE** starts on p. 82

point where big and ugly financial rocks showed up in Dobeckmun's waters.

Product prices dropped 15% to 25%. Labor and materials costs moved, too, but the wrong way.

Dobeckmun's solution: creation of a new management post—that of profit improvement manager—whose full-time job is to watch for ways to cut costs.

• **The Man**—Back of the new job was Dobeckmun's realization that there was nobody on the management team who regularly went down into the plant to watch costs. True, there was an industrial engineer who also presumably watched out for profit. But his effectiveness, because of many other duties, was watered down—at least at the factory level.

Production manager Fred Horstman got the new job—at first on a part-time basis, later full time. Horstman, while well down on the management totem pole, was chartered to cut across lines of established authority to get his story heard by the proper person or persons without hindrance. He was formally turned loose on the profit improvement job in August, 1954.

• **Projects**—Horstman initiates each cost-cutting project on the foreman-worker level. For example, he talks over material waste with both foreman and worker. The subject of operating efficiency—the ability of the foreman's group to meet standards of performance—he discusses only with the foreman.

He sets his teeth into projects until somebody gets going or gives him a good reason why not. How far he goes before quitting depends on the number of dollars involved or on how deeply he is convinced of the soundness of his arguments. Obviously, a profit manager has to be something of a diplomat.

The most obvious proof of Horstman's efficiency in improving profit is the increased consciousness in everybody up to top management of the possibilities for cutting costs. Dobeckmun can see places all about the plant where Horstman has cut costs that might otherwise have been missed. Probably the biggest advantage of the program is the simple fact that everybody is conscious of Horstman's presence.

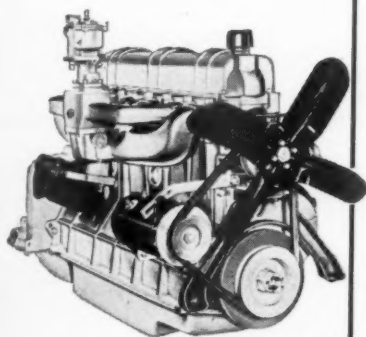
The company recognizes that most of the savings will not come from Horstman's office; they will be merely started there. The final accomplishment will be by the foremen, engineers, and department heads.



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**All-new 140-hp Black Diamond 264 engine** combines famous INTERNATIONAL long life with new, economical sustained-power performance. Has new dual-barrel carburetor, new manifolding, 7.0-1 compression ratio—new low-friction design with 3-ring controlled-expansion pistons—new 50° ramp camshaft for longer valve life—new solenoid-type over-running clutch starter—new 11-inch clutch with 15% more lining area, 25% less pedal pressure. Maximum engine torque: 234 lb-ft at 2000 rpm.

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**With an engine that tops 'em all for efficiency  
— the all-new 140-hp INTERNATIONAL Black Diamond 264!**

**New models and new features** keep coming from INTERNATIONAL all the time! Here now are 1955's first—the R-1700 Series, designed by the leader in the 16,001-19,500 GVW range to bring new hauling profits to every operator using trucks in this class.

These brilliant new R-1700 Series trucks far surpass all former INTERNATIONAL leaders in this GVW classification. And they are powered by an engine that puts out more horsepower per cubic inch than any comparable 6-cylinder truck engine on the road!

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on these money-saving, money-making new INTERNATIONALS. You'll quickly see why—in performance, economy, efficiency—they outrank anything in the 16,001-19,500 GVW class.

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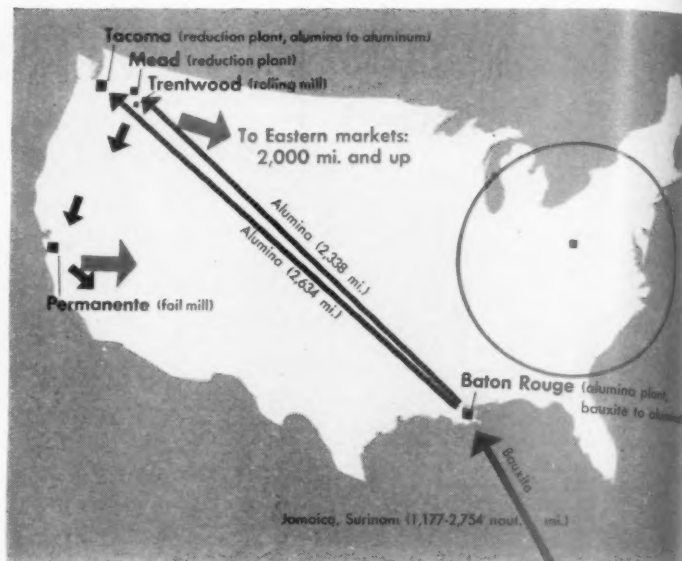
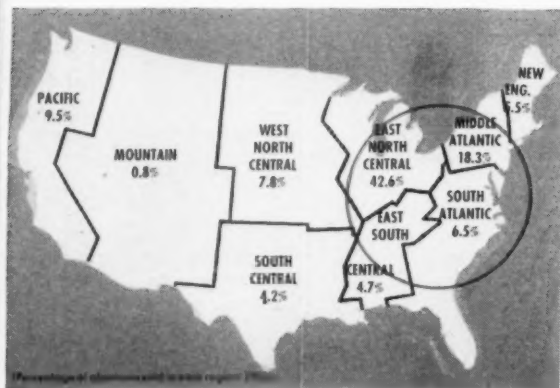
See the season's new TV hit, "The Halls of Ivy," with Ronald Colman and Benita Hume, CBS-TV, Tuesdays, 8:30 p.m., EST



# **INTERNATIONAL TRUCKS**

*"Standard of the Highway"*

# COMPANIES



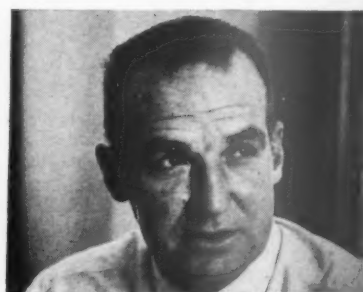
## Kaiser Aluminum: Moving Into the



**BOSS** Donald A. Rhoades is fairly independent of the big boss, Henry J. Kaiser.



**PRODUCTION CHIEF** Thomas J. Ready, Jr., is 44. But his youth is not unique.



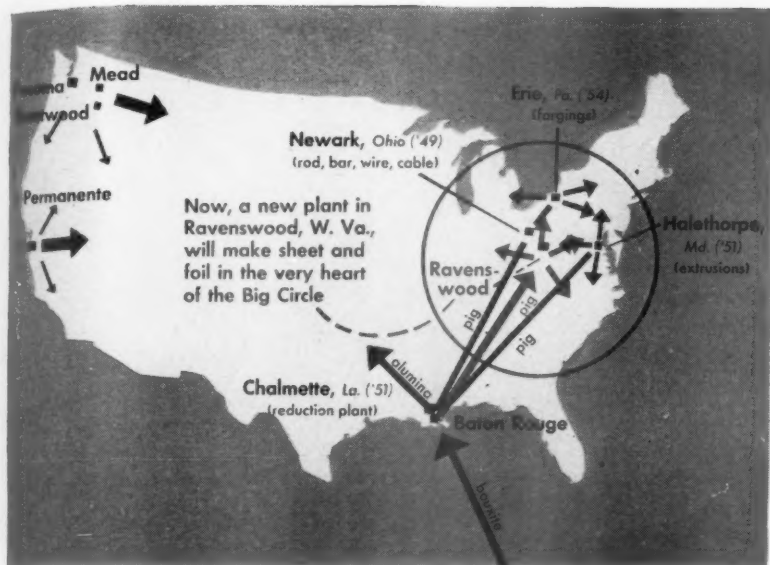
**SALES CHIEF** Bert Inch, 46, had more drive than experience when he was hired.



**LIAISON MAN** between the company and Henry J. Kaiser is E. E. Trefethen, Jr.



**RESEARCH CHIEF** Ralph E. Knight, who runs a \$2.8-million program, is but 44.



## to the Market Center



**CHEMICALS MAN** Frank M. Cashin, 46, heads Kaiser's nonaluminum business.



**TREASURER** Donald Browne is 46. He joined Kaiser as a clerk 20 years ago.

This week, Kaiser Aluminum & Chemical Corp. took a delegation of West Virginia newspaper editors, state officials, and chamber of commerce managers to Spokane, Wash. The company showed them its aluminum reduction plant at Mead and its rolling mill at Trentwood, both just outside Spokane. It stood by, smiling benignly, while they talked with aluminum experts and local newsmen.

"Get the picture?" it asked them. "Well, this is what we have in mind for West Virginia."

Kaiser referred, specifically, to a point 6 mi. down the Ohio River from the town of Ravenswood, W. Va. There, it is starting construction this month of aluminum mills that will cost close to \$100-million. And these may be only the beginning. There's reason to believe—though Kaiser will not say so publicly—that more huge facilities will eventually spring up on the site.

### I. Forced March

As the maps show, the Ravenswood plant is a logical continuation of Kaiser's forced march eastward.

The great bulk of U. S. customers for

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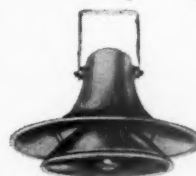


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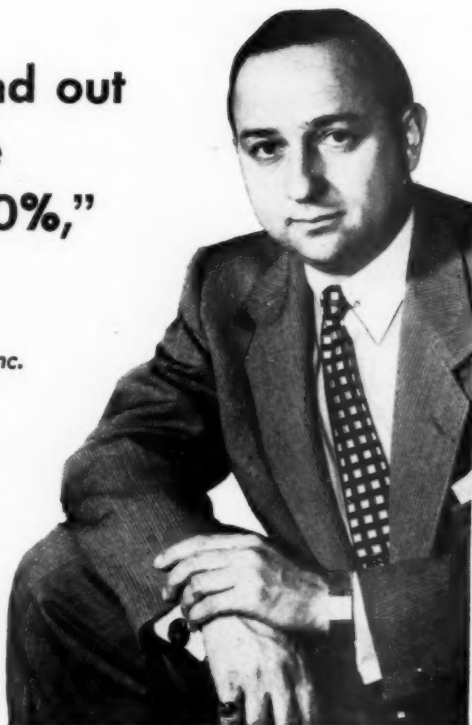
## "We found out how to save up to 30%,

says Arthur Ratner  
President,  
Rentar Packaging Co., Inc.

"As independent export packagers of appliances for General Electric and other leading manufacturers, we can't risk costly damage claims.

"Shipping for export calls for extreme care in packing to prevent denting and scratching. We must have sturdy, lightweight containers to cut handling and shipping costs and guard against damage claims.

"That's why we rely on Atlas Plywood lab-tested containers to help us keep costs down in so many ways. We often save up to 30% for our customers."



**Functional design** makes this General Electric Refrigerator welcome anywhere. To insure the safest inside and outside protection for appliances during shipment, Rentar consulted Atlas Plywood packaging engineers. Jolts of travel are no longer a headache.



**Atlas Plywood Cases** like this are engineered to cushion the contents like a "second skin". They are Rentar's first choice for better, lower cost containers for leading manufacturers who are export shipping clients. Workers like their easy handling.

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aluminum are clustered in the eastern third of the country. Before mid-1949, the bulk of Kaiser's production network was huddled against the West Coast in Washington and California.

This meant some backbreaking hauls. Bauxite—raw source of aluminum—traveled over 2,500 mi. from Dutch Guiana. At Baton Rouge, alumina (aluminum oxide) was extracted from the bauxite and shipped 2,300 or 2,600 mi. to the Mead or Tacoma reduction plants in Washington. The alumina was here reduced to the metal aluminum—over 99% pure and in the form of pigs or ingots as dictated by the end use. Thus, by the time Kaiser got its primary metal, every pound had traveled at least 4,500 mi.

But that wasn't the end of the journey. The pigs or ingots were either sold direct to customers or else sent to the Trentwood mill for rolling into sheet, strip, or plate. Some of Trentwood's output went to Permanente, Calif., 1,000 mi. away, for further processing into foil.

Kaiser had, and still has, a large group of big customers in the West. These customers presented only a minor transportation problem. But how about the customers in the East, in the aluminum-hungry circle shown on the maps? To reach them, Kaiser aluminum had at least 2,000 mi. more traveling to do.

• **Remedy**—A piece of Kaiser aluminum arriving at an Eastern customer's receiving dock thus had traveled at least 6,500 mi., perhaps as much as 8,000. Kaiser had picked up the tab for every inch.

The answer seemed obvious: Concentrate further expansion in the East.

Happily for Kaiser, expansion was in the cards anyway—partly because Kaiser was a naturally growing company and partly because the U.S. government pushed aluminum expansion after the outbreak of the Korean War. Furthermore, there were a fair number of World War II surplus aluminum plants lying around idle. As Kaiser saw it, this was all an opportunity to shift its center of gravity eastward.

Kaiser's first Eastern plant was a maker of rod, bar, wire, and cable located in Newark, Ohio. Kaiser bought it in June, 1949, just a few months after its Permanente foil plant went into operation. Then, early in 1951, Kaiser began construction on what is perhaps the key plant in its Eastern operations—a reduction plant at Chalmette, just outside New Orleans. This plant took only 10 months to build; and almost immediately, Kaiser built an addition to double its capacity.

The Baton Rouge and Chalmette plants make up the hub of Kaiser's



## Fabric helps boost coal



Enclosed Hewitt-Robins conveyor belt at Duke Power Company's Lee Steam Station.

## —to power

At Lee Steam Station, South Carolina's largest steam-electric generating plant, coal has to travel uphill. A half-million tons yearly are carried a distance of 365 feet on a conveyor belt from a railroad junction to bunkers 82 feet high.

Because of the load and inclination, unusual tension develops in the belt.

By using a specially constructed Wellington Sears "Shawmut" belt duck, Hewitt-Robins' engineers designed

a 763-foot belt that withstands the tension successfully, performs with outstanding efficiency.

This belting has to be extraordinarily strong and durable. It is—carrying up to 500 tons of coal an hour, 425 feet a minute. Indeed, since stoppage would shut the Station down within a matter of hours, the belt is guaranteed by the manufacturer not to stretch excessively and thereby require re-splicing. It has not. Since installation in 1950, it has run seven days a week without being stopped for repairs.

This belting also conveys a basic idea. Wellington Sears has blue-printed fabrics for industrial progress for over a century. Whatever your fabric need, cotton or synthetic—from belting duck to filter cloth—unparalleled experience and equipment are at your service. Write us for illustrated booklet, "Modern Textiles for Industry."

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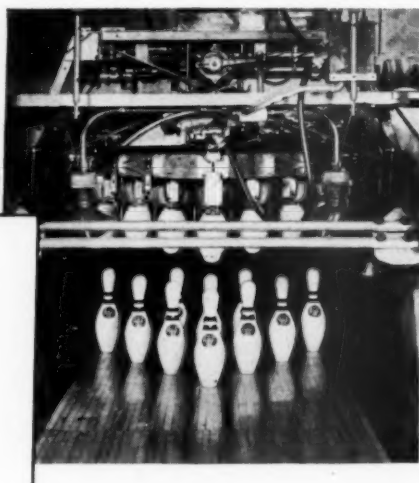
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Because AMF insists that all its products must meet rigorous performance standards, its development programs are exceptionally thorough. The Pinspotter, for example, was perfected after exhaustive research and years of field testing. A similar high quality standard applies to all AMF business procedures, symbolized by its choice of Strathmore Paper for its letterhead.

When you examine Strathmore Letterhead Papers, it becomes obvious why countless prominent firms have selected them for their correspondence. Strathmore craftsmanship adds immeasurable expressiveness to a letter, and its quality defines the fine character of its user. Ask your supplier to show you samples of your own letterhead design on Strathmore papers.

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# STRATHMORE

MAKERS OF FINE PAPERS

Strathmore Paper Company, West Springfield, Massachusetts

*"... has been embraced ardently by industry-hungry West Virginia ..."*

**KAISER ALUMINUM** starts on p. 90

Eastern network. Baton Rouge is the only alumina plant Kaiser has, Chalmette the company's only reduction plant in the East. When Chalmette was built, it let Kaiser cut out the trip to Spokane and back. It let Kaiser serve an Eastern pig or ingot customer with metal that had moved only some 2,000 mi. from the orebeds.

• **Spreading Out**—In May, 1951, Kaiser leased from the government an extrusions plant at Halethorpe, Md. In September, 1954, the company leased a forgings plant in Erie, Pa.

But its rolling mill and foil plant were still on the West Coast—still the breadth of the country away from many big customers. That's where Ravenswood comes in.

When Ravenswood gets into full swing, it will be able to cut Kaiser's freight bill to Eastern markets by more than two-thirds. Assume that Kaiser gets 40¢ a lb. for sheet delivered in Cleveland. Out of that 40¢ the company now has to pay 4.4¢ in freight charges from ore to sheet. With Ravenswood in full operation, the bill will be only 1.4¢.

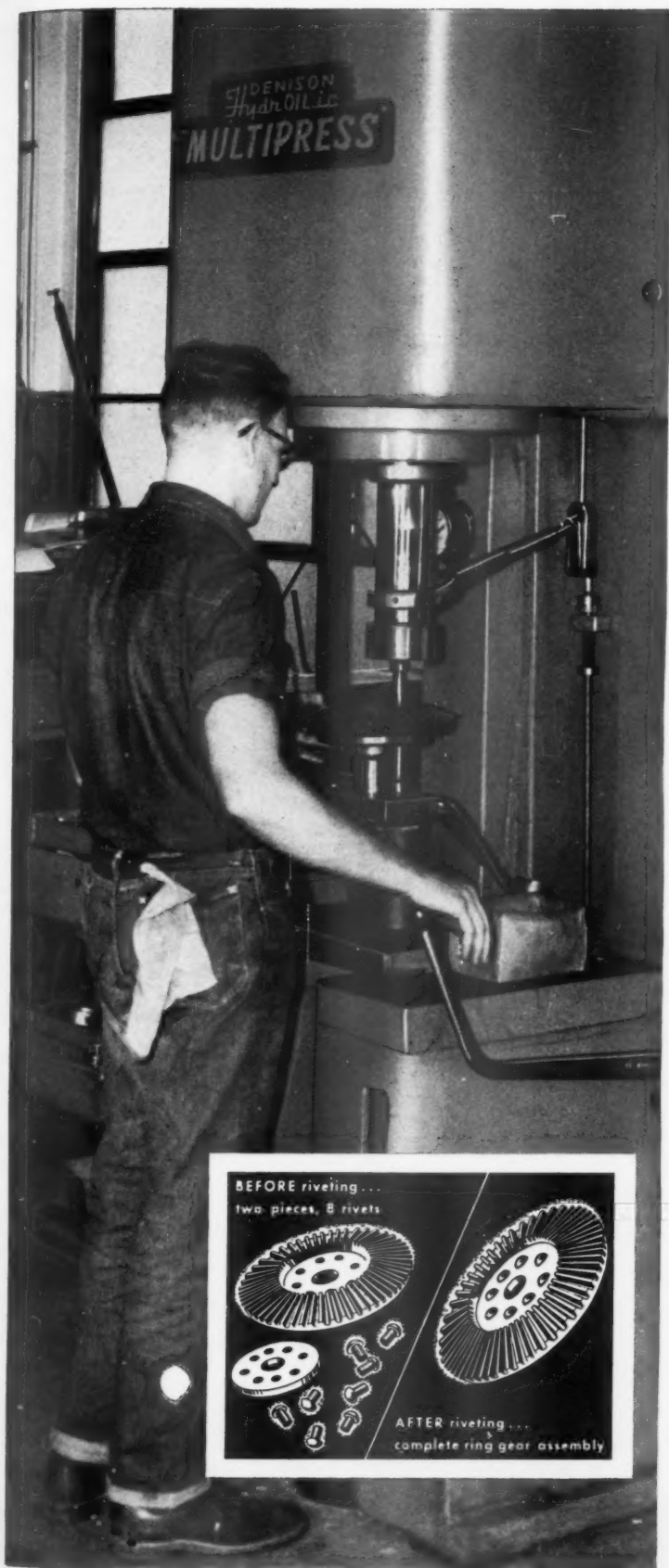
Kaiser is tackling the Ravenswood project in stages:

**Stage 1** will put up a \$21.3-million plant to process rough reroll stock (coiled aluminum strip) into marketable sheet and foil. The reroll stock will come from Trentwood. This will still mean that the metal travels a long way; but it will vastly improve Kaiser's service to customers. Sheet and foil turned out in Ravenswood will be about 12 days' transit time closer to Eastern customers than that turned out on the West Coast.

**Stage 2** will let Kaiser eliminate the trip west entirely for Eastern customers' aluminum. By dint of another \$75-million, Kaiser hopes to install at Ravenswood facilities that will handle pig aluminum direct from Chalmette. This will let Kaiser aluminum go from pig to finished sheet and foil all in one spot.

Stage 1 is the only one Kaiser is talking about right now. The company has been embraced ardently by industry-hungry West Virginia, and it is leaning over backwards to avoid arousing hopes before Stage 2 is a certainty. In the six months since the Ravenswood plans were made public, Kaiser has received 5,000 applications for the 500 or so jobs that will be available in mid-1956.

Still, Stage 2 looks like too obvious



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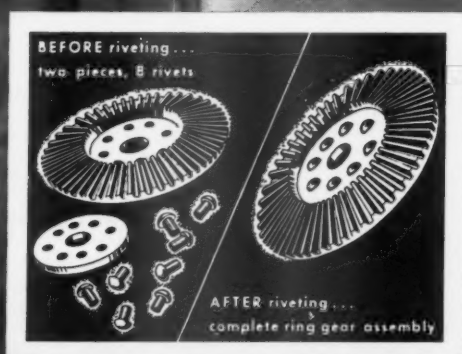
At Barber-Greene Company, they've tripled production for riveting together two halves of a ring gear assembly.

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a move for a freight-conscious company to pass up. Among themselves, Kaiser men are already talking about Stage 3—an expansion of the first two, if aluminum demand keeps climbing.

• **Power**—There are even some very soft whispers of Stage 4. These whispers come from industry observers, not Kaiser itself. They talk of a reduction plant at Ravenswood.

The crystal ball in which this vision appears is the 2,500-acre site Kaiser has taken for its Ravenswood project. The thing that fascinates observers is the fact that Kaiser will need only 60 acres at most for all three stages now being talked of in the company.

Kaiser is mum about the apparent discrepancy. But the observers link it with power costs. An aluminum reduction plant uses immense amounts of electric power; and Kaiser—like other aluminum producers—has given serious thought to possible shortages in the future. Western hydroelectric projects no longer have surpluses. The long-term outlook for natural gas and oil is uncertain. Talk in the aluminum industry has turned more and more to coal, the “sick fuel.”

The observers point out that it would be hard to find a site more accessible than Ravenswood to abundant coal supply.

## II. The Kaiser Legend

It's part of a U.S. business legend that Henry J. Kaiser himself pulls all the strings that control the various operating companies bearing his name. He is in fact both president and chairman of three operating subsidiaries of Henry J. Kaiser Co.—makers of aluminum, cement, and steel. But the extent of his control over the companies is much smaller than the legend would have it.

The men who run Kaiser Aluminum (pictures, page 90) enjoy a high degree of autonomy. Henry J. Kaiser periodically turns up at their offices with a new idea, and he generally stays until he is sure the idea is getting the proper amount of thought. Then he leaves.

The top operating executive of Kaiser Aluminum is Donald Arthur Rhoades (cover), whose prior association with Kaiser's various sand, gravel, cement, and paving enterprises gives him a strong claim to the nickname “Dusty.” His official title is vice-president and general manager. He pulls as much weight in the company as a president would. Except on top policy matters, left to the board of directors, Rhoades is definitely boss.

• **From Scratch**—Rhoades runs a hard-driving, aggressive company that has made hay out of aluminum's meteoric rise in popularity since World War II. Starting from scratch in 1946, with





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"... some of them shuddered at the thought of aluminum..."

**KAISER ALUMINUM** starts on p. 90

small portions of two surplus plants leased from the government, Rhoades has built the company into the third-biggest primary aluminum producer in the country. It has 29% of U.S. primary capacity; Reynolds Metals has 30%, Alcoa 41%. Kaiser Aluminum has been in the black from its first month of operation. On \$226-million of sales in the fiscal year ended May 31, 1954, the company went home with profits of \$14-million after taxes.

The company sprang from nowhere, just after World War II. The government was trying to sell surplus aluminum plants; and Henry Kaiser thought it would be a good idea to buy some, though few other men did at the time. He talked it over with his partners in Permanente Metals Corp.—a group of construction companies that had worked with him on giant dams and bridges and in his wartime shipbuilding program. Some of them shuddered at the thought of aluminum and pulled out. The rest went along. Permanente Metals got into the aluminum business. Subsequently, the name was changed to the one it now bears.

• **Growth**—Demand for aluminum in the past 15 years has always run ahead of capacity, except for cyclical dips, and Kaiser Aluminum fared well from the very beginning. It is now an integrated company; it owns its own mines in Jamaica, processes the aluminum from ore to finished products.

There has always been competition from Reynolds and Alcoa, the other two giants in the business, and the competition is likely to get hotter now that Kaiser is moving heavily into the Eastern market. But it may not get uncomfortably hot. There's a chance that demand for aluminum will keep growing enough to absorb Ravenswood's output without trouble—although Kaiser is not banking on it.

In the West, Kaiser is top dog today; and it intends to stay that way if it can. It will take three or four years for Ravenswood to go into full operation. Kaiser will spend that time strengthening and expanding its West-coast market.

### III. Banking on Youth

Kaiser recognizes, but does not fear, the competitive threat of Reynolds and Alcoa. The company counts on its own natural aggressiveness to maintain or perhaps improve its market position. It puts much faith in the fact that its

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cooling unit with the famous XD Meter-Miser Compressor squeezes every possible degree of cooling power from every dollar's worth of electricity. Compressor warranted for 5 years.

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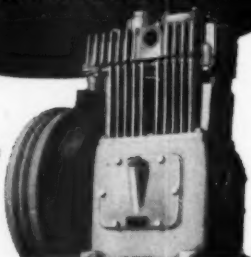
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top executives are young and vigorous men.

Rhoades is 52. E. E. Trefethen, Jr., executive vice-president and Kaiser's personal liaison man in the company, is 45. The other five vice-presidents average 45. Almost every one of them, when he joined the company, contributed more youth than experience.

Thomas J. Ready, Jr., is 44. He was educated as an accountant, joined Kaiser in 1942 as a trouble-shooter in the steel company. He is Kaiser Aluminum's production chief.

Donald Browne is treasurer. He has spent 20 of his 46 years with the Kaiser enterprises. He started as an accounting clerk in 1935 during construction of the Bonneville dam.

S. S. (Bert) Inch, 46, is in charge of sales. He knew nothing of aluminum when he joined Permanente Metals in 1946. Customers' specifications were a foreign language to him. He once phoned in a big order from Glenn L. Martin Co. by parroting specifications

read off by Martin's purchasing agent, who stood at his elbow.

Ralph E. Knight, research chief, is 44. He joined Kaiser in 1938 as a structural engineer. His job is to improve Kaiser aluminum in every stage from ore to market. The company puts \$2,750,000 a year into research—1.1% of sales.

Frank M. Cashin is 46. He runs the part of Kaiser Aluminum's business represented by the tag-end of its name—Chemicals. The overwhelming predominance of aluminum tends to obscure Cashin's tidy little operation, which accounts for some 4% of the company's sales. The chemicals segment of the company makes refractory brick, processed and hydrated limes, and other chemical products for heavy industry. Like the aluminum operation, Cashin's outfit is expanding in the East. It plans to start construction some time in the next month or so on a new refractory plant, to be located at Columbiana, Ohio.

## Oil Romances Blossom

**They're not just infatuations, however. The proposed mergers are all inspired by the same kind of hard-headed reasoning.**

There's a definite pattern of reasoning showing up in the wave of mergers that is sweeping through the oil companies. In practically every proposed case, the merger is obviously a tongue-and-groove union. So much so that you wonder why it hasn't taken place before.

Take a look at what's happening in several sample cases.

• **Supply-Demand**—The biggest of the recent deals is the consolidation of Sunray Oil Corp. and Mid-Continent Petroleum Corp., both with headquarters in Tulsa, Okla. A quick look at the figures involved shows the logic of the proposed amalgamation.

The union of these two companies puts the combine in the big league. Total assets involved come to nearly \$475-million, which, the trade says, will rank it 14th among oil companies operating in the U.S.

Both companies stand to win on the merger. On the one hand, Mid-Continent has more refinery and outlets for finished products than it has crude to meet these requirements. On the other hand, Sunray has been producing more crude than it has capacity to refine.

Sunray's annual crude production amounts to a little more than 25½-million bbl. Its refinery capacity is listed at 14.4-million bbl. But Mid-Continent's crude production is only a little more than 7-million bbl., and the com-

pany has a refinery output of 21.2-million bbl.

Both companies operate large refineries. Mid-Continent's Tulsa plant has a crude capacity of 64,000 bbl. per day—the largest in Oklahoma. Sunray operates a 33,600-bbl. refinery near Duncan, Okla., owns a smaller one at Allen, Okla., and has a 50% interest in Sundt Refining Co., which has a 35,000-bbl. plant at Corpus Christi. Sunray has 290 miles of pipeline, Mid-Continent has 1,998.

As for marketing, Sunray has only five bulk and service stations, while Mid-Continent has 2,715. According to plans, Mid-Continent's D-X stations in 15 central and Northern states will be supplied with gasoline made from Sunray crude.

• **"On Balance" Position**—Now take a look at the case of Kirby Petroleum Co. and Continental Oil Co. Here is an instance of one company, Continental, picking up ready-developed properties, owned by Kirby.

Here again, logic—rather than philosophy—is behind the deal.

Continental is classed among the producers who are "on balance"—that is, it produces more oil than it processes.

In the mechanics of the oil business, this is a happy position to be in. The strategy here is that when companies have oilfields all over the place they

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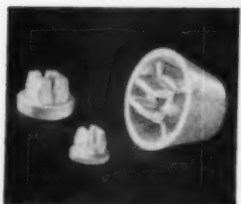
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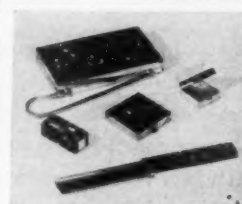
# Sterilization problems of tough, resilient



**ZYTEL**® nylon resin is a versatile Du Pont engineering material for mechanical applications. Parts made of it are strong, resilient, and lightweight. Often they require no lubrication. "Zytel" can be economically mass-produced by injection molding. Here are several types of self-retaining, non-conductive grommets molded of "Zytel."



**ALATHON**® polyethylene resin has good chemical resistance and excellent dielectric properties. "Alathon" is tough and flexible over a wide range of temperatures. Freedom from odor, taste, and toxicity makes it an ideal packaging material. Shown is a flexible pouring spout of "Alathon" that fits on paint cans for easier pouring.



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# solved with units "ZYTEL"\* nylon



Even if this utensil holder is dropped while loaded with silverware, it won't break or chip—it's molded in one piece of Du Pont "Zytel" nylon resin. "Zytel" can withstand the scalding temperatures in a sterilizer without deformation. Lightness of weight helps reduce shipping costs. (Cylinders are molded for the Steril-Sil Company, Boston, Massachusetts, by Solka Products, a Division of General Tire & Rubber Co., of Lawrence, Massachusetts.)

## Utensil holders of Du Pont "Zytel" stand up to scalding sprays without warping or cracking

Dozens of times every day these cylinders, used for sanitary silverware handling, are loaded with silver, then sterilized under a scalding water spray. Originally metal holders were used for this operation. But metal retained heat—couldn't be handled comfortably for long periods afterwards.

### "Zytel" cools quickly for faster refilling

The manufacturer, Steril-Sil Company of Boston, Massachusetts, decided to try Du Pont "Zytel" nylon. "Zytel" didn't warp or crack under punishing 250°F. temperatures. The holders can be handled and refilled promptly after they're taken out of the sterilizer. Resilient holders of "Zytel" can be dropped without breaking or denting. They resist chemical attack and can't rust.

These utensil holders are typical of the numerous products of "Zytel" which are economically injection-molded in one piece. Parts molded of "Zytel" nylon resin generally require no finishing operations. Many manufacturers find that using "Zytel" cuts production costs while improving product performance.

**Have you investigated the unique properties** of "Zytel" nylon and the other members of the Du Pont family of engineering materials—"Teflon" tetrafluoroethylene resin, "Alathon" polyethylene resin and "Lucite" acrylic resin? The applications shown here are typical product improvements—possible when design and service requirements are evaluated in terms of the properties of these versatile engineering materials. For further information on their properties and uses, clip the coupon below or write to E. I. du Pont de Nemours & Co. (Inc.), Polychemicals Department, Room 332, Du Pont Building, Wilmington 98, Delaware.

\*"Zytel" is the new trade-mark for Du Pont nylon resin.

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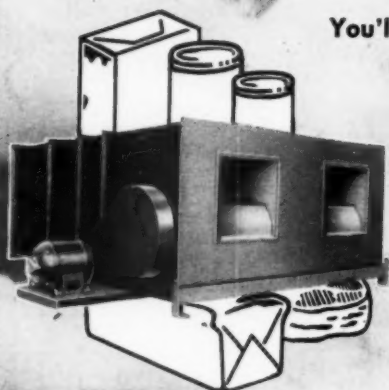


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can swap crude with other producers for crude closer to their own refineries. This swapping often saves the price of a pipeline.

In the Kirby-Continental deal, what really happened is that Continental picks up a little more production to improve its "on balance" position. Kirby is a relatively small company compared with Continental, but its properties include 120 producing oil and gas wells in 32 separate fields in Texas, Louisiana, Mississippi, New Mexico, Nebraska, Arkansas, and North Dakota. Average daily production from the wells is only 3,137 bbl. of oil and 12-million cu. ft. of gas.

The acquisition would also include all of Kirby's royalty interests and partnership interests in natural gasoline and gas cycling plants at Katy, Tex., and Ville Platte, La. Kirby Petroleum Co.—in the business since 1921—is dissolved. Continental owns a total of 5,962 net oil and gas wells in 14 states and Canada, operates eight refineries, owns all or part of 16 natural gasoline plants, and has marketing facilities in 26 states. The deal is more of an absorption by Continental than a merger in the literal sense.

• **Liquidation**—Last week, stockholders of American Republics Corp. approved liquidation of the company, and thereby opened the way to purchase of its assets by Sinclair Oil & Gas Co., a wholly owned subsidiary of Sinclair Oil Corp.

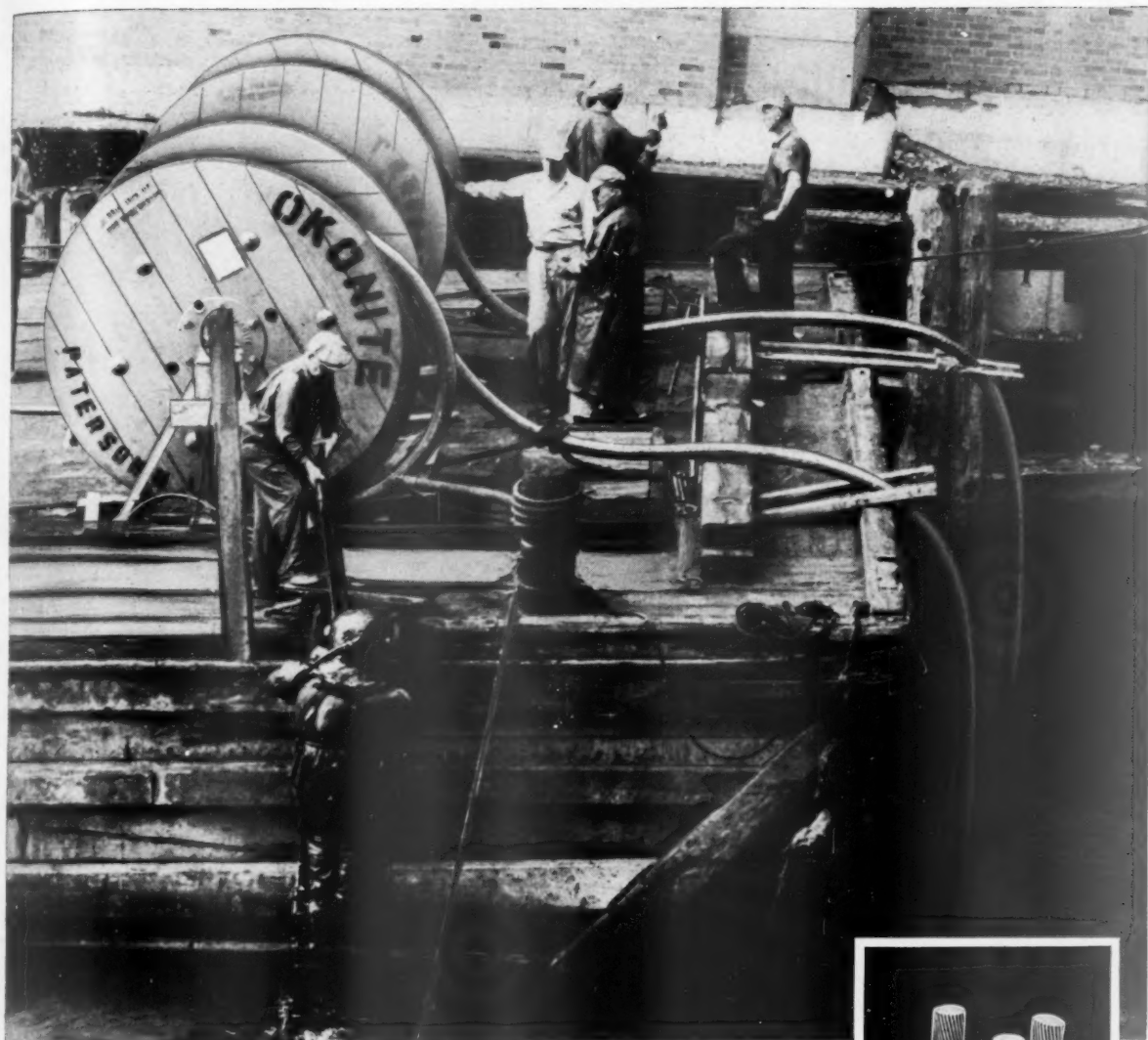
Here, the subsidiary, which would operate the properties, would be improving its "on balance" position.

American Republics is entirely a producing company, with assets consisting of 610 producing oil wells and 75 producing gas wells in Louisiana, New Mexico, and Texas. Net production amounts to a daily average of about 14,200 bbl. of oil and around 49-million cu. ft. of gas.

Sinclair itself has a refinery capacity of about 400,000 bbl. a day, with its own crude production amounting to only about 125,000 bbl. In other words, Sinclair produces only about 30% of the crude it could use.

If the deal goes through, Sinclair will pay American Republics \$108-million for its total assets, after which the company will be entirely liquidated.

• **Neighbors**—While the directors of these big companies are mustering their proxies and planning their strategies, two small oil companies in Michigan are quietly talking merger for the very simple—if no less logical—reason that they're so close together. Midwest Refineries, Inc., has its offices at Grand Rapids, and its 10,000-bbl.-a-day refinery at Alma. Roosevelt Oil & Refining Co. operates a 7,500-bbl. daily refinery at Mount Pleasant—less than 50 miles away.



*where there's*

## **ELECTRICAL POWER**

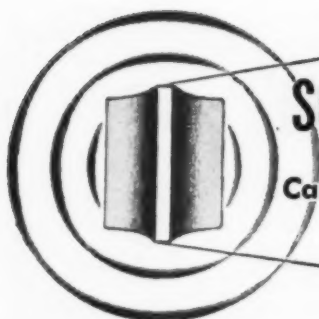
Submarine power and control cables like these require special installation techniques—even the use of divers to insure proper laying. Equally unusual manufacturing skills are also necessary to insure their continuous operation.

Another example of Okonite's know-how is the famous "Bonneville Cable" installed in 1951. This record size 25,000 volt cable lies alongside 18 other Okonite submarine cables operating just in the Puget Sound area. Some of them were installed over 25 years ago. The design and manufacture of reliable insulated cables has been Okonite's business for more than 75 years. The Okonite Company, Passaic, New Jersey.

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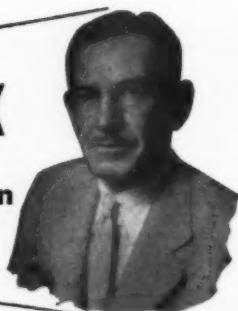


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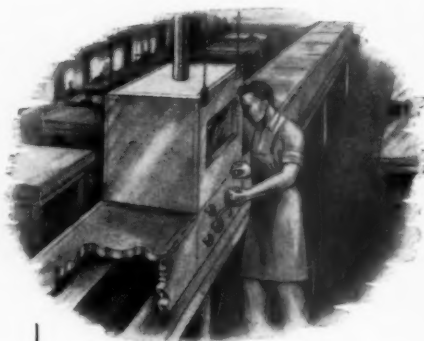
## SOUND TALK

by  
Carl W. Lemmerman



# THIS PLANT HAD A 12 MINUTE SHIFT

Grinding down helicopter blades made such a hideous racket that 12 minutes at a stretch was all an operator could stand without suffering ear damage. Naturally, management was deeply concerned about the limping production rate, the shattering effect on employee morale, the constant spectre of deafness claims.



### SOUND THE ALARM

ISC was called in, the problem turned over to our Silence Service engineers. And they came up with the answer: a specially designed acoustical enclosure which surrounds the grinding machine and has access openings which permit efficient operation of the unit.

### A HAPPY ENDING

A worker can now put in a full day's work at the machine with no ill effects. The 12 minute shift has become a relic of the plant's noisy past.

### SILENCE IS GOLDEN

Our files are full of case histories like this one. Some are big jobs, some small. But to the individual

plant concerned, each is vitally important, because management men know that proper control of noise has many advantages: increased production, improved employee morale, reduced accident rates, elimination of deafness claims and better community relations.

If your plant has a noise problem, drop a line to me outlining the trouble.

*Carl W. Lemmerman*

Don't forget to ask for a copy of our complete catalog "Silence Service for Industry".

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AVIATION • INDUSTRIAL •  
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## LOCAL BUSINESS

### The Past Tops TV

**CHEYENNE**—The National Park Service last week once more blocked attempts to put a television tower atop historic Scotts Bluff in Western Nebraska.

The bluff, now a national monument, was one of the great landmarks of the Oregon Trail. From its top—4,649 ft. high—there is a view of the entire Platte Valley, and around its base can still be seen the ruts worn in rock by pioneer wagons. Some years ago, the park service built a road to its top, lining several of the road's tunnels with colored concrete to match the dirt of the butte and keep its appearance unchanged.

Agitation to put a 50-ft. television tower on top of the butte has been going on ever since Cheyenne TV station KFBC got a Federal Communications Commission O.K. to build station KSTF in nearby Scottsbluff, Neb. William C. Grove, general manager of KFBC, contended that a tower at any other spot would be interfered with by the monument; one-third of the area residents would be unable to get good reception.

In the fight that built up, the broadcasting company won the backing of Wyoming's entire Congressional delegation, chambers of commerce of the valley towns, and the local mayors. Rep. Arthur L. Miller (R., Neb.) said NPS had no right to deprive people of TV, which is "as much a part of America as visiting national parks."

Last year NPS turned down an application to build the tower on the butte, holding that it would be a travesty and would violate NPS' trust to the people. The broadcasting company applied for a review, and hearings were held early last month in Washington. NPS' ruling came last week—another flat "no."

### Can't Snub Santa

**CADIZ, OHIO**—This county seat of an eastern Ohio mining county, hard hit by the decline in coal production, has just lost a four-year battle to keep from taking federal welfare funds.

The fight ended when the Ohio Supreme Court issued a writ ordering Harrison County to accept U. S. payments. The state welfare director had sought the order so the state wouldn't lose \$3-million a year in grants for totally and permanently disabled people. Washington had threatened to cut off the grants unless all of the state's 88 counties complied with changes made in the laws in 1950. Of all the counties, Harrison was the lone holdout.

Harrison commissioners proudly con-





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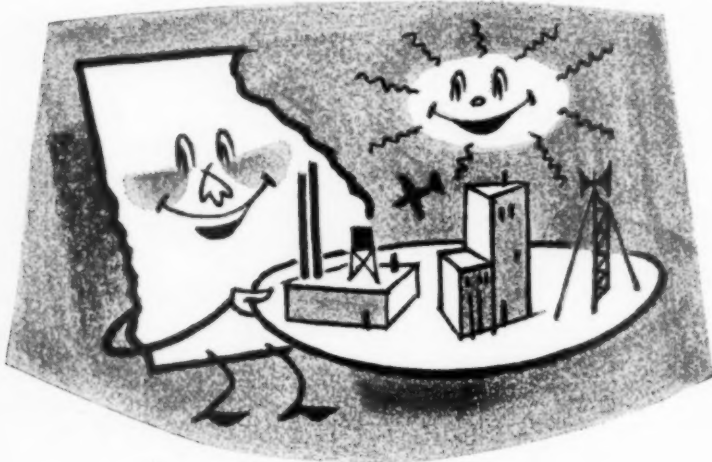
ings can be tailored to insure easy communication with convenient desk-to-desk work flow. Free-standing partitions are available to form ideal private offices, executive suites or departmental sections. TECHNIPLAN means modern appearance...maximum efficiency in your office. Your Globe-Wernicke dealer will be glad to demonstrate TECHNIPLAN. He's listed in the "Yellow Pages" of your phone book. Or write us direct.



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- **Nearby Raw Materials**—facilitate production from start to finish.
- **Nearby Consumer Markets**—a new and prosperous "home-grown" market for your goods and services.
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Department 6, 100 State Capitol, Atlanta, Georgia

**GEORGIA DEPARTMENT  
OF COMMERCE**

tended they were perfectly able to care for their disabled under their own relief program. Although the money involved was small—an estimated \$400 a year—the commissioners said it was a matter of principle. Despite the fact that employment in coal production—the county's biggest industrial employer—has dropped about 30% since 1950, they just don't want any government hand-outs, they said.

## Soup Tax No Soap

**PHILADELPHIA**—Pennsylvania's Delaware County is going to lose about 6% of its revenue this year—all because Campbell Soup Co. registered to do business in the state.

Campbell, which has its headquarters in Camden, N. J., took out a Pennsylvania franchise last fall in a move to make its stock more attractive to state residents. The company made its first public offering of stock in November (BW—Nov. 13 '54, p43). It got the franchise by buying out Joseph Campbell Co., an affiliate that procured and shipped raw products in the state.

Last week, Delaware County discovered that the move had cost it \$200,000 in personal property taxes. Here's why:

Pennsylvania counties can levy a personal property tax on securities owned by residents only if the shares are in out-of-state companies. Two of Campbell's largest shareholders—with a total of \$50-million worth of stock—are two of the daughters of John T. Dorrance, Campbell's late owner and president. Both live in Delaware County.

Since Campbell now has a Pennsylvania franchise, the county is stopped from collecting its four-mill tax on Campbell stock. Other counties are in the same fix, but Delaware, with its \$200,000 loss, is hurt the most.

## Stock-Car Cab Debate

**NEW YORK**—This city's police department still isn't sure whether it likes stock-car taxicabs or not.

The department's Hack Bureau said last week that, since the first stock models were licensed last summer (BW—Jul. 24 '54, p54), their accident rate has been 40% lower than that of the standard cabs. There have been few complaints, and drivers and customers both seem to like them.

But Police Commissioner Francis W. H. Adams isn't convinced. He said the bureau's report lacked statistical depth and drew unwarranted conclusions. Adams wants a more factual study on safety before the department decides to license the cabs beyond the trial period that winds up Dec. 31.



## What makes one latex paint better than another?

Some latex paint brands are so easy to work with and give such fine results they make the novice feel like an accomplished professional. Others give you a hard struggle from the moment you open the can. What's the difference? It all begins with the paint manufacturer's choice of ingredients.

In the better latex paints, the chances are that the manufacturer has chosen one or more of Borden's top quality paint chemicals. For his stabilizer he selects a *Cascoloid* or *Protovac*. These are caseins specially modified by Borden for uniform pH and viscosity. They overcome the difficult problem of control associated with raw casein, yet retain all of casein's natural stabilizing qualities. No other company can match the Borden years of experience and research with casein.

Borden's *Polyco* department offers a wide range of base

emulsions for latex paint—butadiene-styrenes, acrylics and polyvinyl acetates. No other company can supply all three types. *Polyco* also has supplementary acrylic thickeners specially formulated for these emulsions. These ingredients when skillfully blended and mixed help produce that "better" paint.

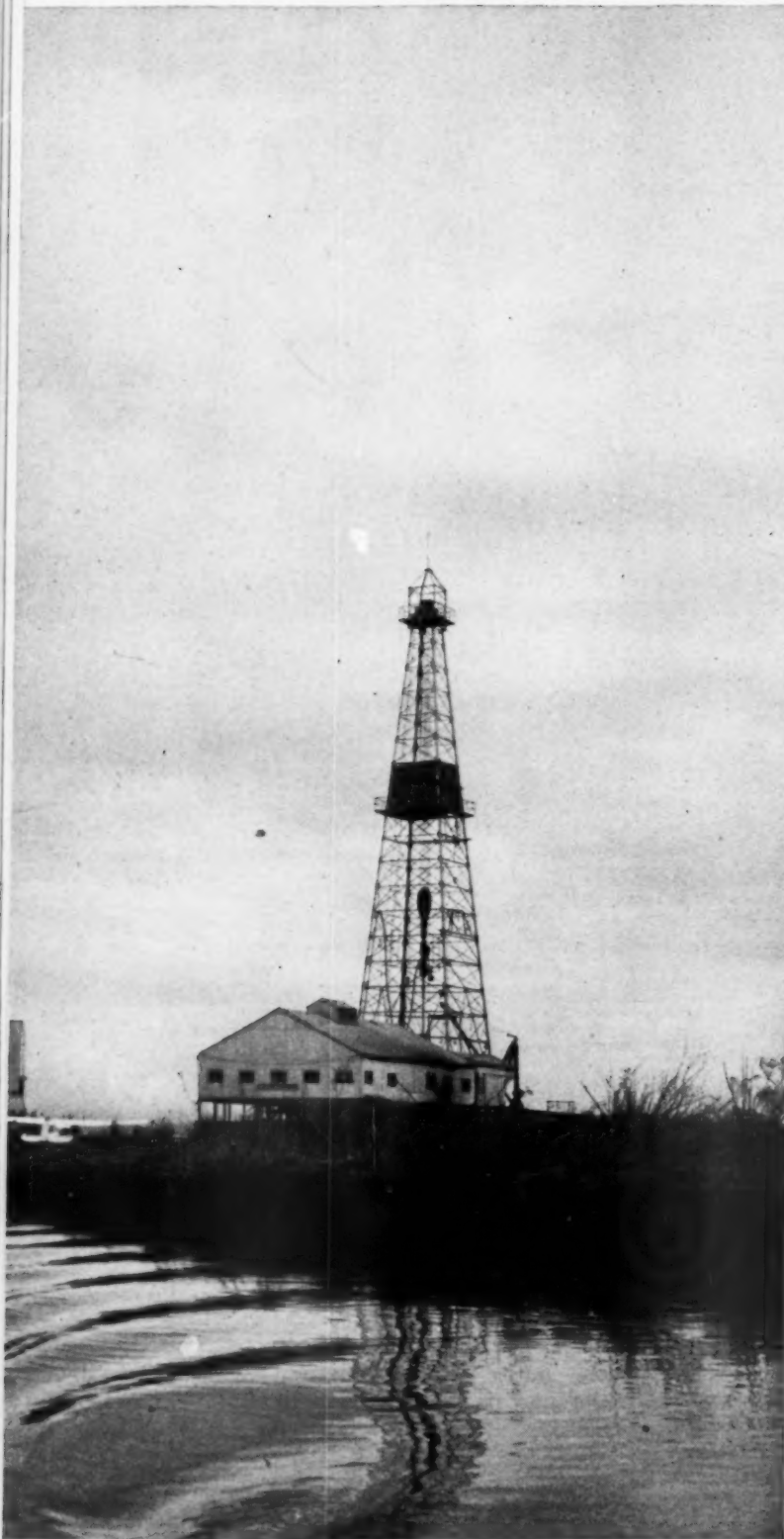
If you're a paint manufacturer, a Borden technical representative would be glad to work with you on your formulation problems. Write now to The Borden Company, Chemical Division, Dept. BW-25, 350 Madison Avenue, New York 17, New York.



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CHEMICAL DIVISION

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RESINS \* POLYMERS \* MOLDING COMPOUNDS

# REGIONS



**OIL** is the prime mover of the change. Wealth—whether it's from payrolls in the swamps or office buildings in the city—flows into New Orleans from oil wells all over southern Louisiana, such as this Shell Oil rig.



Two new bridges (map, above) will rescue New Orleans from the "island" on which it's now imprisoned. But conservative city people still cling to the traditional; they love their Canal Street trolley cars (right) and wide avenues.

## The New

This is a city remaking itself through a series of quiet revolutions. Old New Orleans, laden with history and tradition, hemmed in by the Mississippi that was once its life, is making itself over—fast.



**TRADE** is still what New Orleanians talk about. At International Home (above), buyers close deals with sellers.





## New Orleans: Jumping the Barriers

Part of the rebuilding you can see: **Breaking barriers**—Now starting are a \$46-million causeway across Lake Pontchartrain and a \$65-million bridge across the Mississippi (see map) downtown in New Orleans (nearest bridge

is now 9 miles upstream). They'll break the water barriers—the lake and the river—that have hemmed the city into an overcrowded and high-cost crescent.

**A new center for the city**—A brand-

new union railroad terminal and a \$17-million civic center (for which ground has just been broken) will be the nucleus of a new business district west of the old business area. New roads and a \$50-million grade-separation pro-



**UNION TERMINAL** has broken down compartmentation of city by maze of old railroad tracks, has helped move core of city's business district westward.



**SUPPLIERS** to oil industry put new life into business. Shipyard is building this offshore oil rig.



## THIS IS NATIONAL STEEL

Just about everything comes in tin cans . . . and now America's steel mills, container manufacturers, and soft-drink companies team up to produce . . .

# Soft Drinks that Put Sparkle in the Party

**A** welcome guest in homes today is a familiar favorite in a new package. Across the land, soft drinks in tin cans put the sparkle in many a party.

The growing use of tin cans for containers is one of the newest advances in the soft-drink industry. Cans offer many advantages: They are easier to

carry, to chill, to store, and finally to dispose of. And, because "tin cans" are actually about 99 per cent steel, they are unbreakable.

These advantages account for the production of an estimated 750 million soft-drink cans in 1954. Industry sources predict a tremendous increase over the next few years for the tin can

as a container has many qualities demanded by consumer and canner alike.

### Geiger Counters to Tennis Balls

Tin cans, of course, are not new. The first "tin canister" was patented by Peter Durand in 1810. A good tinsmith could construct about ten cans a day. Modern can-making machines now

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cess in canning beer. However, the soft-drink can, though similar to the beer can, posed many new problems. Higher pressures and greater acidity called for special steels and different lining materials. And each of the 21 or more soft-drink flavors marketed today has different characteristics and container requirements.

The success of the soft-drink can resulted from the close teamwork of the steel mills, can manufacturers, and soft-drink companies in solving these many complex problems. Since 1950, when soft-drink cans first appeared in quantity on grocers' shelves, progress has been constant.

#### Steel in the Starring Role

National Steel, of course, is not in the soft-drink or can-manufacturing business. National's role is that of a leading supplier of hot dipped and electrolytic tin plate to the country's can manufacturers. National research and production men work closely with their customers to develop the precise kinds of steel and tin plate needed to produce the more than 35 billion tin cans made every year. Tin cans consume about four million tons or more of tin plate each year—and that means steel and lots of it.

It has been said that modern civilization could not exist without the tin can. Canning has made possible the wonders of exploration, it has proved a boon to the housewife, it has fed our troops on the battlefield, it has reduced food costs, and substantially raised our standard of living.

And canned soft drinks are just the newest example of the many modern products made possible by *steel*—America's great bargain metal.

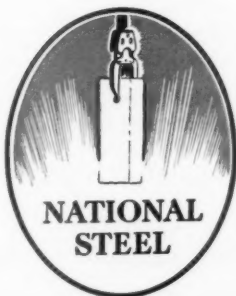
turn out hundreds a minute in a glittering flood!

Many years of research and experiment have gone into designing cans for many thousands of products. Today everything—from pork and beans to beer, from whipping cream to shaving cream, from Geiger counters to tennis balls—comes in cans. The soft-drink can represents one of the latest mass production miracles made possible by American ingenuity . . . and *steel*.

#### Teamwork Creates a New Product

The development of soft-drink cans parallels that of the beer can in many respects. In a relatively few years the use of tin cans for beer has skyrocketed, so that last year about six and one-half billion beer cans were produced.

The current development of cans for soft drinks is an outgrowth of the suc-



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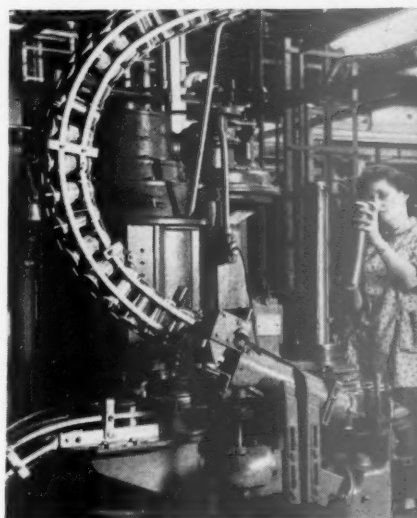
**NATIONAL STEEL**  
GRANT BUILDING



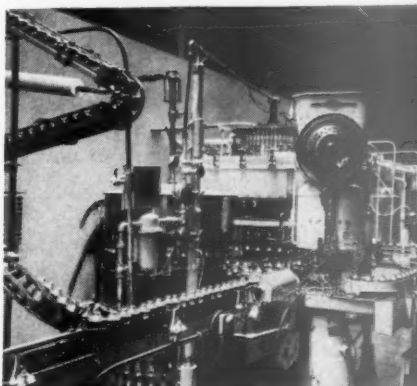
**CORPORATION**  
PITTSBURGH, PA.



Weirton Steel Company, a division of National Steel, is a leading producer of tin plate. Here sheets that have been cut from a giant 23,000-pound coil of tin plate are moved to the shipping department, where they will be packaged for delivery to a can manufacturer.



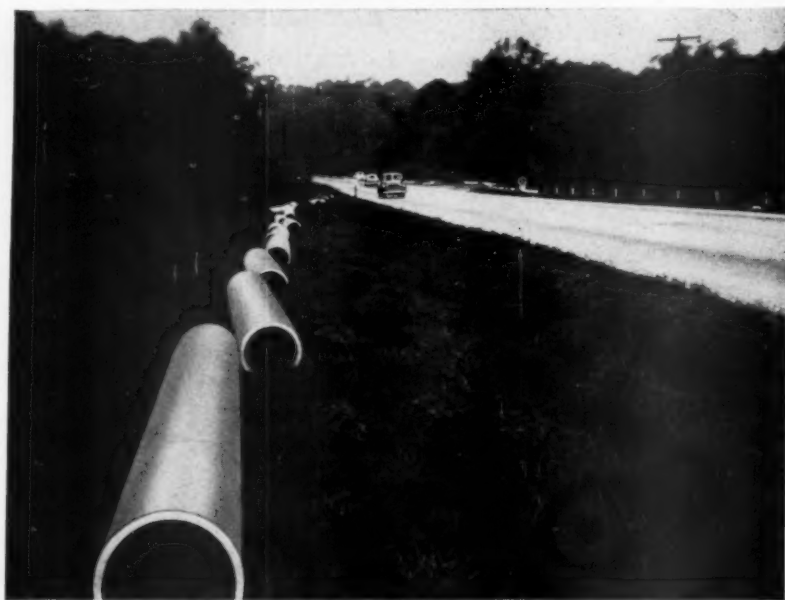
Automatic machinery makes possible the mass production of tin cans to meet the country's growing needs. Here, can bodies move at high speed along a modern conveyor line to the "bottom seamer," where the can bottom is securely fastened in place.



In the canning plant, too, automatic high-speed machinery makes possible the tremendous production that means more and better things for more Americans. This machine fills and closes the cans and moves them to the waiting shipping cases—all automatically.



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"Century" pipe awaiting installation along U.S. Route 1—part of an 8000 ft. water supply line, 12" Class 150 pipe, from the Borough of Media Water Works to Middletown Township, Pa.

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The ten qualities listed below are in fact ten reasons why "Century" Asbestos-Cement Pipe can save tax dollars.

One of these ten qualities is in itself enough to prove an economical advantage. "Century" Pipe cannot corrode externally or internally. The inside diameter does not get smaller, the bore remains smooth, with the result that the volume of flow continues unchanged year after year

and pumping costs do not increase.

Many municipalities have selected "Century" Pipe for the savings that it assures. Write today for information as to how your community can benefit from low-cost K&M "Century" Pipe.

**Industrial Uses, Too! "Century" Pipe serves industry in a variety of ways. For information on how it can be used profitably in your business, drop us a line, outlining your problem.**

### QUALITIES THAT MAKE "CENTURY" PIPE ECONOMICAL, TROUBLE-FREE, LONG-LIVED

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4. DURABLE. 5. IMMUNE TO ELECTROLYSIS. 6. TIGHT JOINTS. 7. SMOOTH BORE. 8. EASILY, QUICKLY LAID. 9. LIGHT WEIGHT. 10. LOW COST.

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*"... all this is changing the whole fabric of New Orleans life ..."*

NEW ORLEANS starts on p. 112

gram have cut congestion. Office buildings—most of them built by oil companies, the latest by Shell—are burgeoning. The result: a new face for downtown New Orleans.

• **Background**—Other—and more far-reaching changes—are not so visible.

Oil is now the prime mover in Louisiana's economic growth. Louisiana is the third producer in the U.S., may someday top California to reach second place. The oil industry and its sisters, natural gas and petrochemicals, invested more than \$200-million in Louisiana last year. For all this, New Orleans is headquarters. The eight new or modernized oil buildings have changed the city's skyline. Oil has created an estimated 60,000 jobs in the city, partly by bringing with it a host of services to provide tools and other equipment. Its demands for crew boats and offshore rigs have revived the city's shipbuilding.

**Trade**—moving mid-America's goods to Latin America and Europe—is what New Orleans talks about. Since World War II, the rapid growth of International House and the International Trade Mart (page 112) has helped push New Orleans shipping well above its World War II peak. It's the second U.S. port—measured on dollar volume of exports and imports. International House and the Trade Mart have been so successful that their sponsors are now hoping to build new and larger quarters near the new civic center.

**Manufacturing** is the least known but fastest growing activity within the city. Not too long ago, New Orleans imported practically everything it used. Since World War II, industry has invested \$700-million in the New Orleans area.

• **Top to Bottom**—All this is changing the whole fabric of New Orleans life. It has brought in thousands of workers, hundreds of executives (the Petroleum Club alone has grown from nothing to 700 members postwar).

It has put new drive in the city's life, both business and civic. It has sparked a campaign to rehabilitate the city's housing (26% substandard). It has forced gambling and prostitution underground: New Orleans is no wilder now than many a Northern city. The rate on major crimes is about average for both Northern and Southern cities.

Even Mardi Gras and the city's hereditary, class-conscious Creole society are changing fast. To see how it is happening, turn to page 118.



*A New England Mutual Agent answers some questions about*

# how the corporate dollar can benefit both your company and your key men

**THE BUSINESSMAN'S POINT OF VIEW** is keenly understood by Kenneth R. Mackenzie, C.L.U. — New England Mutual agent from Boston, Mass. For like so many of the Company's specialists in business life insurance, Mr. Mackenzie has had extensive experience in the business world. He was a sales manager for over 13 years before joining New England Mutual. Men with this understanding represent New England Mutual all over the country. Let one of them help with the problems in *your* business.



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## What other advantages are there for the corporation?

"In case of the employee's death before retirement, most of the proceeds are credited to the corporation's surplus. These proceeds are tax free. In case of resignation, the cash value of the insurance is also credited to surplus. And the plan allows the corporation to answer the requirements of each executive individually."

## How does the key man benefit?

"He'll get more out of the deferred than the current compensation, because presumably he'll be in a lower tax bracket when he retires. Then he knows the plan will provide an additional source of income for his wife if he dies before retirement or within ten years after retirement. And he enjoys the added satisfaction and incentive of working under a plan which has been specially designed for him to improve his financial prospects for the future."

## How do I know how your plan would work out for us?

"The best thing to do is have a New England Mutual specialist in business insurance adapt the plan to your needs. There's no obligation, and, with the cooperation of your attorney, he'll show you just how it will work out for both the company and the key man. Or you can send for more information by mail. Check your preference on the coupon below."

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## MARDI GRAS

is a year-long industry in New Orleans. Here, 17-year-old Wilder Breckenridge, queen of one of this week's balls, is fitted to the inevitable hoop-skirted ball dress. Fathers will spend up to \$1,500 for queens' gowns.



**FINE FOOD** is first thing tourists find about in New Orleans



**OUTDOOR** living is the gracious way, even in winter. Above, Court of the Two Sisters.

## The Old New

This is the old New Orleans that New Orleanians cling to. Its French Quarter, its Mardi Gras tradition go back to the early 1800s. Its emphasis on elegance and fine living go even further back.

It is this traditional spirit that will turn New Orleans to all-out fiesta next Tuesday morning—Shrove Tuesday, Mardi Gras. The day climaxes the Car-



Caltoire's (above) is only one of perhaps a dozen top restaurants in city.



**NIGHT LIFE** means Bourbon Street, with bars, honky-tonks next to fine restaurants.



**DECAYED ELEGANCE** marks the city's rundown housing. Fine wrought-iron lacework is the architectural hallmark in the congested old quarters of the city where the richest and the poorest live.

## Old New Orleans: It Refuses to Die

nival that has been running since early January. On the Carnival the city shoots a year's planning and work—on floats (hundreds of them), balls (about 65 this year), and parades (there'll be 15). Something more than 200,000 people, white and colored, Protestant and Catholic, high society and low, will jam the streets and bars and restaurants downtown.

• **Contrasts**—This Old New Orleans is in sharp contrast to the new—in a city that is a study in contrasts. There's hardly another city with so many sharp and sometimes conflicting facets. Among them are:

• **Mardi Gras itself.** It starts with balls sponsored by the krewes, or Carnival organizations. These are stiff, formal, often a bore to the male mem-

bers—although few would have the courage to say so. Members maneuver from the time their daughters are born to win them Carnival honors when they are debutantes. The old-line krewes—such as Rex, Comus, Momus, and Proteus—are the last keep, the final stronghold, of the Creole aristocratic tradition.

But Mardi Gras is revelry for all. It's



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the people's festival, the day everyone forgets care.

• The elegance and the push. Everywhere New Orleans polishes the elegance that has come down from the past—yet it is a Southern city in which people work like New Yorkers. A girl will borrow \$1,500 to buy the evening gowns she needs to be presented during Mardi Gras—then work as a secretary for two years to pay off the debt.

New Orleans is used to contrasts like this. Some of them seem built into the city. In the French Quarter, for example, the well-to-do live alongside the poor, honky-tonks huddle up to fine restaurants, the cheapest of novelty shops are alongside antique stores with museum pieces in their windows. The city is used to these contrasts and lives with them.

New Orleans itself is in sharp contrast to the rest of Louisiana. It has the stamp of its French founders, is dominated by the Catholics, has the tradition of easy-going tolerance. But Northern Louisiana is the land of the "red neck"—hard-shell Baptist farmers working high ground. This is a source of constant differences between New Orleans and the state capital at Baton Rouge. It means, as the politicians say, that "you have to be Catholic to be mayor of New Orleans; but you can't be Catholic and be governor of Louisiana."

• Change—Many of these contrasts mean change—and the city is used to change. Half Catholic, one-third Negro, it is perhaps the most tolerant Southern city, the most adaptable in the U.S. Founded by the French, it has absorbed Germans, Spanish, great numbers of Irish and Italians—and even Yankees. It grew great with the steamboat in the early 1800s, fell flat when the railroads took over the trade and began carrying Midwestern goods directly to the Eastern seaboard ports. Floods, plagues, and hurricanes once scourged the city regularly. (The hurricanes are still a problem.)

The city tends to resist change, as all people do. New Orleanians flooded the newspapers with letters and city hall with calls last year when the statue of Gen. Robert E. Lee was moved off its pedestal. As it turned out, the move was only the first step in restoring a foundation that had begun to sag. But the storm it brought up was a measure of New Orleans' concern for landmarks. It clings to trolley cars on St. Charles St. and Canal St. in the same way. In the end it changes, taking to the new with grace.

All this has given New Orleans a character that no other U.S. city can match. But that character is changing—and may change more in the next 10 years than it has even in the last 20. For that story, see the opposite page.





## MAYOR MORRISON SETS PACE FOR

# Hustle Plus Elegance

The mayor of New Orleans is a young man with lots of drive working in an office that breathes rusty elegance. He is deLesseps Story Morrison, 43, a Louisianan of French ancestry, and his story is in many ways the story of New Orleans.

• **Birth Pangs**—New Orleans was founded about 1700 by the French, seeking ground in the marshes high enough for building, and trade routes to the Gulf Coast at Biloxi, where they already had a settlement. Under a government that was generous with land grants, and with rich soil and five feet of annual rainfall, it quickly became a plantation center.

John Law's monumental scheme of speculation in Mississippi land, the famous "Mississippi Bubble," brought settlers to the swamps from both France and Germany. Shipload after shipload, white and black, arrived—and found nothing. They died, they went insane in the swamps, they fell prey to malaria and other diseases.

But some survived and prospered. Three years after New Orleans' founding, old letters describe houses with crystal chandeliers swinging their candlelight from rough rafters. The letters tell of floors carpeted with fine furs, and a colonist's wife "dressed in the style of the French Court." New Orleans was elegant from the very beginning.

• **Glory**—Despite hurricanes, plague, and floods, the colony grew. It was given to Spain in 1762 by Louis XV, transferred back to the French in 1803, and promptly resold to the U.S. as part of the Louisiana Purchase. With the coming of the steamboat in 1812, and the consequent opening up of river traffic all through the central U.S., the city boomed.

Its glory days and great growth came between 1830 and 1860. The Creole aristocracy—the old families of Spanish or French ancestry—flourished; Mardi Gras started. New Orleans survived recurrent plagues—cholera and yellow fever killed 5,000 in 1832, about one-sixth of the population. The city resisted the Yankees. The Americans moving in could not get along in the old downtown French Quarter. They went uptown to an area that is still called the American section. In effect, they built their own city.

• **Decay**—Came the Civil War, and the capture of New Orleans by Farragut collapsed the city. The ending of slavery undercut its whole economy. The steamboat lost to the upcountry railroads. New Orleans, which had been growing far faster than the rest of the U.S., fell into slumber. It was revived briefly by the boom of World War I, but then to all intents and purposes went back to sleep again. Huey Long rose to power and was assassinated.

The Louisiana scandal in the late 1930s rocked the State. Gambling and prostitution flourished openly in New Orleans, corrupting the city.

• **Double Renaissance**—World War II brought prosperity again—and awoke forces in the city and state that started the remaking of New Orleans.

These forces worked in two ways. A group of the city's businessmen—led by shippers whose business had revived, and by the merchants—founded International House. At this highly successful club and service center, shippers and merchants from an area extending from New York and Chicago on the north to Argentina in the south could meet and do business.

A reform group went to work in politics at the same time. Much of the steam for this came from New Orleans women, who paraded with brooms in their drive to sweep out the rascals. Behind both groups was the thought: We don't want New Orleans to sink again after this war as it did after World War I.

• **Man and Moment**—The reform group had a bad break. Their candidate for mayor backed out at almost the last minute. They started a frantic hunt for a new man.

At this point, a young lawyer who had served in the state legislature and then in the Army, came home. He was young, he was in uniform, he had no record on which he could be attacked. Almost before he knew it, he was the candidate. And to the surprise of most of New Orleans, which had been ruled by the old machine for decades, Chep Morrison was elected mayor.

Morrison sensed the forces at work on the city—and on the whole South. He rode the new energy revitalizing the area, he worked with industrialists coming in from the North. He bested the old political machine and created a new one, so that New Orleans politics now run smoothly. He pushed the drive on gambling and crime, a drive that has cleaned up a traditionally wide-open city and hasn't yet spent its force. He started the drive on public works—which has got rid of many of the railroad tracks and grade crossings downtown and is literally remaking the central part of New Orleans.

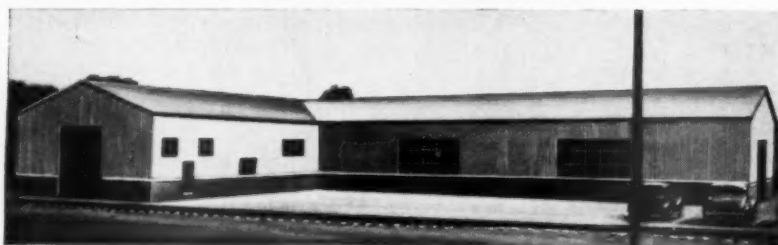
Most important of all, Morrison made himself a salesman for the city. He has made 15 swings through Latin America to drum up business for the port. He beat the industrial bushes of the U.S. to bring to New Orleans plants like the \$150-million Kaiser Aluminum plant at Chalmette, the \$50-million American Cyanamid and \$31-million Lion Oil plants. Morrison's office is lined with photos of potentates he has visited or entertained in his role as merchandiser of New Orleans.

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operation. It reflects the efforts of New Orleans newspapers and of dozens of groups and citizens. More basically, it reflects the changed tone, the new energy that permeates New Orleans. Nowhere is this change in the city's life more striking than it is in Mardi Gras.

### Before Lent

New Orleans is a woman's city when it comes to Mardi Gras. The fanfare, the dancing, the costumes, the rigid social codes built up around what was once a religious festival have much that is feminine in them. As one male from an old New Orleans family puts it, "In Carnival time, my mother lived between heaven and earth. She never quite made heaven, but she was well above the earth."

And it is the women today who put the steam behind Mardi Gras.

Mardi Gras is two things: a set of social, exclusive, very secretive organizations called *krewes* that put on balls and parades. And then Mardi Gras is a day—this year it's next Tuesday—when the whole town goes a little wild.

• **Krewes and Kings**—The *krewes* are clubs. Dues range from \$50 a year to \$150. Each has 150 to 200 members. Only men belong to the older *krewes* and, in these, membership is almost hereditary. They have only one function: to stage a ball, and perhaps a parade, at Carnival time. And as one member of an old-line *krew* put it, "The men get nothing—not even any real fun—out of it."

There's one important exception to this. The citizen who is elected king of the Rex *krew* is King of Carnival, and wins the most-coveted recognition New Orleans can give. But in other *krewes*, the kingship is just one day of minor glory. The real wheel is the captain of the *krew*, an anonymous but highly influential leader who runs the show year after year.

• **Daughters and Debutantes**—It is the women who win the glory. Through the winter, wives and daughters hang on the mailman's coming to get their invitations to the good balls. The city's debutantes are presented at the balls. To be elected queen of the court is the top honor. In fact, the girl elected queen of Comus, and presented at the most social of all the balls, on the evening of Mardi Gras, expects royalty to bow to her. The Duke and Duchess of Windsor made their bows to the Queen of Comus in 1950.

An old New Orleans family will give up almost anything to win honors for a daughter. Men will join a *krew* when their daughters are born—knowing that it will cost them as much as \$2,000 a year for dues, dresses, and parties—in order to insure the girl her place in the court when she comes out. Old families

# BUSINESS IN MOTION

*To our Colleagues in American Business ...*

This is called a rack. It is fastened to electric light poles to hold wires from pole to pole, and from pole to house. Perhaps you may have noticed racks on poles, but unless your electric company has recently replaced them on the lines in your vicinity you have not seen anything quite like this. It is made of aluminum, instead of galvanized steel, and is assembled almost entirely of extruded shapes.

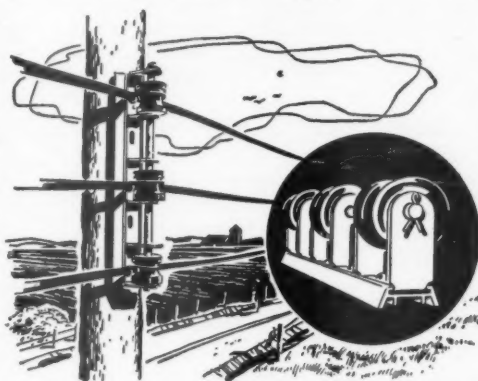
Naturally you will think that aluminum was chosen in order to save weight, and as a matter of fact, lightness plus strength is a factor. The aluminum rack is five to six pounds lighter, and that is appreciated by the linemen who have to put the rack on the pole after they have climbed it. However, lightness is not the main consideration. Long life is the big advantage. Modern methods of treating poles with preservatives make it reasonable to assume that a pole will last for 50 to 60 years. Now for the first time there is a rack or bracket, as it is sometimes called, that should outlast the pole. As soon as aluminum is exposed to the air, a thin film of oxide forms, and this is a protection against further action by air and rain. As for price, the aluminum rack costs a little more, but this is compensated, many times over, by the increased years of service.

There are some interesting features of design that are worth noting. The extruded shape that forms the

base of the rack is adequately ribbed for strength, and in addition, provides a channel into which the arms are slid after having been notched and bent at right angles. The channel and the arms together take the pull of the wires; the rivets are used just for positioning. Incidentally, the rack has to withstand a total pull of 6,000 pounds. The arms are formed with a slight longitudinal camber or bow and have rounded edges, because linemen pull the wires across them,

and the camber and edges protect the insulation from damage. The rod on which the insulators are threaded is extruded aluminum. One final detail, which is not easy to see in the drawing; the bottoms of the base are toothed, to hold to the pole better.

Revere takes especial satisfaction in this new and superior rack, because the Technical Advisory Service, the Mill, and the customer worked so closely together. There was a joint attack on the problem of developing a product that would not only be better, but could be assembled simply and economically. Suppliers to industry are not only well informed regarding their materials, but glad to cooperate with customers and prospects on matters concerning specification and fabrication. Revere suggests that you call upon your suppliers not only to fill orders, but to place their skill and knowledge at the disposal of your designers and production people.



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**"... there is nothing more rigid in New Orleans than these traditions..."**

**NEW ORLEANS** starts on p. 112

will sell off their antiques to finance that coming-out season.

• **Old and New**—There is nothing more rigid in New Orleans than these traditions. The city, roughly half Catholic, is remarkably tolerant on racial problems. In most things, it shows no anti-semitism. But, as one Jewish leader put it, "Things are fine 51 weeks of the year. The 52nd week, though, is Carnival week."

But time is catching up—fast. In the middle 1930s, there were only about a dozen krewes. Today there are 66 or 67—and any group that wants to do so can form its own organization and give its own ball. There are even three krewes made up of women. Negroes now have a parallel set of their own krewes.

Even the old-line krewes are loosening up—slightly. It has always been possible for the daughter of an old New Orleans family to marry an outlander and get him into society pretty rapidly. It was harder, much harder, for a New Orleans son to bring in an outlander wife. But eventually outsiders who had position and manners—even the Yankees—made it.

Today the top people in oil companies who come to New Orleans make the old-line krewes without too much trouble. And practically anyone can get into one of the newer organizations. On Mardi Gras, of course, everyone, black or white, native or northerner, gets into the fiesta.

### When Lent Begins

When Mardi Gras is over—and the first day of Lent dawns—the town sobers off, goes to church, and then back to work. Classified ad columns are sprinkled with notices of ball gowns for sale. Many a debutante's father will resign from his krewes with real relief.

Then the krewes recede into the background and New Orleans social life settles down to pretty much the same thing you find in other cities, both for the old New Orleanians and for newcomers from outside. There are the small and exclusive men's clubs in which New Orleans takes pride—social clubs such as the Boston Club and the Pickwick Club. But newcomers find a place in something like the burgeoning Petroleum Club (where they can do business over lunch), in the various business organizations, or in the country clubs.

• **Economics**—Mardi Gras, though,



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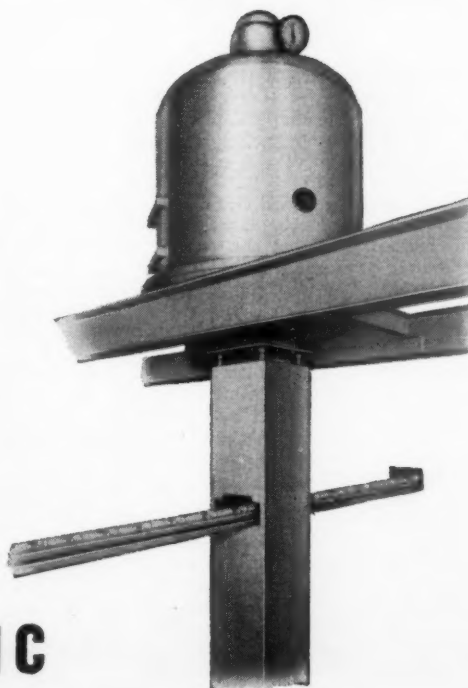
Plastics are just one area of application for the G-E 1-mev electron beam generator. Research has also proved electron beams lethal to microorganisms. Investigation on such food products as meat, milk and bread is currently being conducted.

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## Progress at Whiting

By Stevens H. Hammond, Chairman of the Board

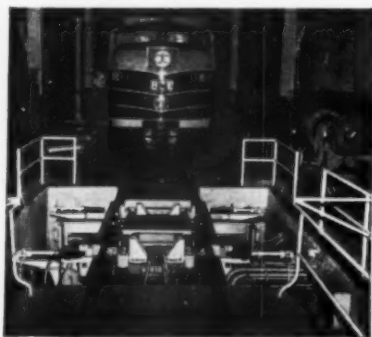
Today with all of industry aiming for greater production at less cost, it would be hard to find a company anywhere—large or small—that isn't using or planning to use automation.

Automation is a strange word in that it can mean many things to many people. Actually, it is nothing new and, in a broad sense, is relatively simple. As for myself, I like to describe automation as today's fashionable word for what Whiting has been doing for seventy years . . . mechanizing industrial processes.

While the years have shown that practically every piece of Whiting equipment

protecting passengers from the elements, it speeds the movement of passengers, freight and baggage. It increases terminal capacity by 50 per cent, handling three planes in the space formerly needed for two. In addition, Whiting Loadair reduces manpower requirements and eliminates the need for expensive mobile equipment. It is truly an outstanding application of automation applied to the air transportation industry.

Of course, all Whiting equipment has behind it an automation theme that carries to practically every industry. For example—Whiting materials handling



Diesel engine approaching Whiting Wheel Grinder

aids automation, two of our rather recent equipment developments make this point self-evident. They are the new Whiting Wheel Grinder used by railroads and Whiting Loadair used by the air transportation industry.

As for the Whiting Wheel Grinder, its economic advantages are many. With the old method, restoring the contour of locomotive and rail car wheels meant complete wheel removal . . . a lengthy, multi-step operation. It was expensive and required many man-hours. With the Whiting Wheel Grinder, wheels are ground on the locomotive or car without removing a single bolt. It does a faster, more accurate job while reducing the crew to only two men. The biggest savings, however, is realized by the greater availability of rolling stock—turning shop time into road time.

Moving from one mode of transportation to another, let's briefly look at the economy story behind Whiting Loadair. First used in South America and recently installed at New York International (Idlewild) Airport in New York, Loadair is based on an entirely new concept in aircraft loading and unloading. Besides



Whiting Loadair at New York International Airport,

equipment, such as Overhead Cranes, Trambeam Overhead Handling Systems, Electric Chain Hoists and Trackmobiles, is noted for its ability to increase the productivity of an entire plant and thus reduce overall costs. Cost-conscious management is also familiar with many types of Whiting equipment in the foundry, chemical processing, metal-working and railroad fields.

Whiting has been one of the first manufacturers to be aware of automation's value to all industry. Knowing that firms will always need it, our aim is to constantly develop new and revolutionary methods for increasing production and lowering costs. That is *our* business, and we intend that it progress.

*Stevens H. Hammond*

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leaves its mark on the economic life of New Orleans as well as the social life of the city.

Mardi Gras—and one other New Orleans peculiarity—make the city's economy different from that in any other U.S. city. The second peculiarity is the high cost of land. New Orleans is below the river's level—so many lots have to be drained and many have to be filled in before a house is built. That alone can add \$1,500 to the cost of a small lot.

And the river cramps New Orleans—it hasn't been able to throw out satellite suburbs the way other cities have, simply because there is little land available. So city building sites have a scarcity value. Even a modest lot may run \$7,000—and it is not hard to spend as much as \$40,000 for a site in one of the better residential districts.

• **Pattern**—In combination with the aristocratic tradition of good living and the devotion to Mardi Gras, high shelter costs have given the New Orleans economy a pattern of its own:

- It probably has more fine restaurants—Galatoire's, Brennan's, Antoine's, Arnaud's, Commander's Palace, perhaps a dozen in all—than any other city its size.

- It sells more evening dresses than any comparable city, has dozens of specialty dress shops, Carnival suppliers, and float builders who live off Mardi Gras.

- It is conservative. New Orleans men dress quietly. Only recently would a young woman think of wearing shorts to, say, a supermarket. Sport shirts, and furniture for outdoor living, which flooded other cities years back, are only now catching hold in New Orleans.

- All this means that sales of department stores in New Orleans are relatively low. They equal 13% of the city's disposable income, as compared to 22% in Atlanta. Stores find it hard to sell higher-priced quality goods.

The combination affects the city in other ways, too. It makes it a tourist and buying center for the Middle South. But some civic leaders feel that the city is short-changed on community and charitable activities because so much money and attention goes into Mardi Gras.

In New Orleans, though, you'll find that these sentiments are not widespread.

- **Growth City**—When New Orleanians slow down to think of the future, they're pretty sure of what they see. They see the city growing—it has been doing it up to now at about the average rate for U.S. metropolitan areas. It will continue to grow with the port, with the impetus of manufacturing, with the continuing expansion of oil. Even though major production in the much-publicized offshore areas under federal

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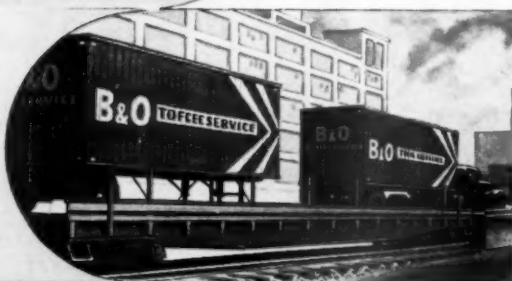


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"... but in the long run New Orleans may bump up against a limit..."

NEW ORLEANS starts on p. 112

lease is a year or so off, the reserves of oil there are huge.

The city may even grow faster than other cities. By throwing the new bridge across the river (with the nearest one now 9 miles upstream, ferries are jammed) it will gain living space. Merchants are already casting an eye across the river to Algiers and its adjoining communities for shopping center sites.

The suburbs New Orleans now has are the fastest growing part of the metropolitan area. With the new districts opening up to provide space for industry and schools as well as homes, the whole area will have a long-delayed growth that may be quite rapid.

• **Problems**—New Orleans will have its problems, however.

Housing is one. About one-quarter of the city's homes are substandard. But a new housing commission has police powers to force landlords to rebuild, bring their homes up to standard. It hopes to persuade owners to do the rebuilding themselves, and to put 5,000 homes a year back into shape over a period of 10 years.

Racial relations are another problem. But the city has a tradition of tolerance—the Catholic Church, for example, has taken the lead in desegregating churches. And it has no big centers, like Harlem in New York, which might fester. Rather, Negro homes are scattered through the city.

• **Limits**—None of these things seems likely to slow the city's growth seriously. Its metropolitan area population may well grow beyond today's 773,800 at a faster rate than the U.S. average. But in the long run New Orleans may bump up against a limit that it cannot change.

New Orleans' trading area is roughly a semicircle. It doesn't have the full 360-degree sweep of land around it that, say, St. Louis has. The Gulf and the marshes cut down the New Orleans trading area.

This is true, of course, of other port cities. But New Orleans is different from these in that its nearby trading area is thinly populated. All of Louisiana has less than 3-million people, almost half of them in rural areas. The only other cities with more than 150,000 population, Baton Rouge and Shreveport, are respectively 83 and 320 miles away.

So New Orleans doesn't have growing up near it the closely meshed belt of satellite cities that feed and develop the markets of New York, Philadelphia, and Los Angeles.



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**BULGANIN AND ZHUKOV**

## The Marshals Move Up

Two marshals of the Red army—Nikolai Bulganin and Georgi Zhukov—emerged from last week's Kremlin shake-up as top political figures in Moscow. These two men, as Premier and Defense Minister respectively, have more political power than any Soviet military leaders have had since Stalin consolidated his totalitarian rule some 25 years ago.

There is no telling yet where this shift of power will lead. The Communist Party bureaucracy, led by Nikita Khrushchev, hasn't abdicated its power by a long shot. What's more, there is no sign yet that the Red army is shooting for full and outright control.

• **Wobbling**—There is no doubt, however, that the post-Stalin crisis in Russia (BW—Feb. 12 '55, p. 25) is pushing the Red army more and more to the fore. And there is no doubt either that in the process the basic structure of Stalin's totalitarian system has become wobbly. For the Kremlin shake-

up did more than crack the power of Georgi Malenkov and the government bureaucracy he headed. It also cracked the basic principle of the Soviet state as established by Stalin—the absolute unity of political and military leadership. Under Stalin this was as fundamental a credo as is the separation of powers under the American Constitution.

The break from Stalinism shows up all too clearly in the political emergence of Bulganin and Zhukov:

• For the first time in Soviet history a Red army marshal who has been a life-long professional soldier has become the top military man in Russia. That's the lofty role Zhukov now plays as Defense Minister in the new Kremlin setup.

• The man who was used by Stalin as the Communist Party's watchdog over the Red army and by Malenkov to balance the conflicting interests of the party and the Red army now has become Premier. This means a

great increase in Bulganin's personal power and a potential threat to the party's control over the army.

• **Stalin's Checks**—Stalin ruled the Soviet Union with his own special brand of checks and balances, notably by maintaining party control over the army and secret police control over both party and army.

For more than 10 years after Lenin's death, Stalin struggled to get the army under his thumb. First he got rid of Trotsky, who was Peoples Commissar for the Red army, and thus struck a decisive blow at the "collective leadership" that took over after Lenin's death. But it wasn't until he liquidated the top military leaders of Russia in the great purges of 1936-37 that Stalin achieved his goal. By this time he had perfected a system whereby a special military branch of the Communist Party (the Main Political Administration) and a special agency of the secret police controlled the army from top to bottom.

During World War II, though, the Red army began to feel its oats. At the end of the war, even Stalin, with all his authority, found it hard to maintain his control system.

With his death in March, 1953, the whole system weakened. That was especially true after Beria's downfall when the secret police itself was subjected to a purge and its control over the Red army began to disintegrate. At the same time the party's Main Political Administration lost much of the influence it had had under Stalin.

• **Switch**—With last week's shake-up the whole trend under Stalin has been reversed. Today there is no Communist Party bureaucrat, not even Khrushchev, who could possibly subjugate the army to his will. With the secret police on the downgrade, the party has no instrument of power for purging the Red army as Stalin had in the '30s. The declining influence of the secret police showed up when Beria was unable to save himself and again in the way Malenkov lost out despite the fact that until last week he had a stronger hold on the secret police than Khrushchev had.

As for the Red army, you have to look at the careers of Bulganin and Zhukov to understand how it fitted into Stalin's system of checks and balances both before and after his death.

### Bulganin

It was in 1938 that Bulganin first got involved in army affairs. At that time Stalin pulled him out of his post as President of the State Bank and made him a lieutenant general in the Red army. Stalin felt that Bulganin was the

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## Look what's happening to water-base paints!

On outside masonry, new water-base paints dry so fast that two coats can usually be applied before the scaffolding is moved to the next location. That's a real time-saver! Inside, water-base primer-sealers save time, too, because they can be applied over still-fresh plaster, eliminating the need for long waiting periods while the plaster ages.

A major ingredient that makes these easy-to-use paints more resistant to weathering and wear is a Dewey and Almy product called EVERFLEX G. EVERFLEX G is a vinyl acetate copolymer emulsion which Dewey and Almy sells to paint manufacturers as a base for masonry paints and primer sealers. Paints made with EVERFLEX G can be applied successfully at temperatures as low as 40°F. They have no unpleasant odor. Brushes or rollers can be cleaned easily in water.

Dewey and Almy's knowledge of the chemistry of small-particle dispersions may benefit your company as surely as EVERFLEX G helps the paint manufacturer. Perhaps, in the list of our other products, below, there's one that will help you improve a product, solve a packaging or merchandising problem, or help cut production costs. Why not investigate today?



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UNITED STATES STEEL



RED ARMY on parade.

kind of man he needed to maintain control over the army.

Bulganin had had a varied career before going to the State Bank. He had been an official of the original GPU, a factory director, and chairman of the Moscow Soviet (Mayor of Moscow). But it was the job Bulganin did at the State Bank that impressed Stalin. There he had shown his skill as an organizer and his deftness in handling the clashes of personalities and policies that developed as the Soviet credit system creaked under inflationary pressures from Stalin's industrialization program.

In World War II Bulganin really proved his worth to Stalin. By 1944 he was Stalin's chief political commissar in the Red army, a full general, and a member of the State Defense Council. In 1947 he was made first deputy to the Defense Minister and a marshal of the Red army. In 1948 he became Defense Minister and a full member of the Politburo. In army matters, Bulganin has now become Stalin's chief watchdog and trouble shooter.

• **Partial Eclipse**—But this proved to be the peak of his career under Stalin. In 1949 he lost the Defense Ministry to Marshal Vassilievsky, his one rival among the political marshals. Apparently Bulganin had got caught in the crossfire between the secret police, the Communist Party, and the Red army. Despite his demotion, he remained a member of the Politburo from 1949 to 1953, with a grip on the Red army that was still strong.

When Stalin died, Bulganin again became Defense Minister, a job that now carried much more authority. As his first deputy he chose Marshal Zhukov, while Vassilievsky was demoted to second deputy.

As Defense Minister under Malenkov





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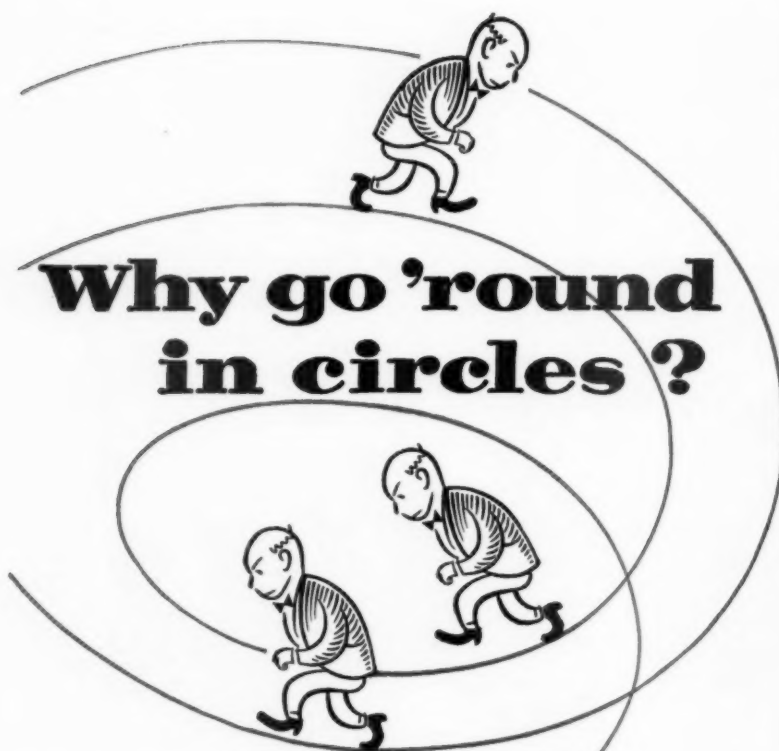
**The secretary**—more of her letters go in the mail basket, fewer in the wastebasket. Air conditioning makes any office more efficient.

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**". . . Bulganin had got caught in the crossfire . . ."**

**RED ARMY** starts on p. 12

kov, Bulganin was deeply involved in the liquidation of Beria and the subsequent weakening of the secret police. There is no evidence yet about the part he played in Malenkov's resignation. But it's hard to see how this could have been engineered without Bulganin's consent.

It is an open question whether Bulganin today is more a party communist than an army man. But one thing is clear: He is not a stooge for Khrushchev any more than he was for Malenkov. His career has carried him to a position of great influence. From now on he will play his own game as every top Kremlin leader must, if he is to survive.

### **Zhukov**

There is no doubt where Defense Minister Zhukov stands. If Bulganin's career has made him put party interests first up to now, Zhukov's career has made him put the army first. His basic interests and loyalties are all with the Red army and always have been, even though he has been a Communist Party member since 1919. It was this fact, plus his wartime prominence, that led Stalin to send Zhukov into obscurity in 1946.

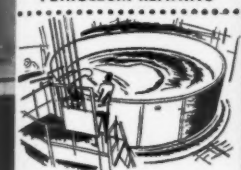
Zhukov was an unknown officer in the Red army until 1940, when he became a general, along with a host of new generals whom Stalin appointed to replace the army brass that had perished in the purges. By the end of the war, Zhukov had become Russia's outstanding military leader. With the Russian people he was a legendary figure—the hero of the battles of Moscow, Stalingrad, and Berlin. He stood at the top of Russia's new military aristocracy, with social and financial prerogatives equal to those enjoyed by members of the Politburo.

By this time Stalin feared Zhukov's popularity and the Red army's new esprit de corps, which Zhukov symbolized. In Stalin's eyes, there was a real danger that this new esprit would replace party loyalties in the Red army and even lead to the development of a cohesive political force there.

• **Comeback**—It was only after Stalin's death that Zhukov came back to the center of power in Moscow. As the first deputy of Defense Minister Bulganin, he began to reassert his tremendous influence in the army. And soon he began to play a political role. At the time of Beria's downfall he joined in a meeting of Red army marshals that put an O.K. on the police chief's arrest. His position



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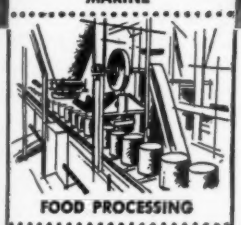
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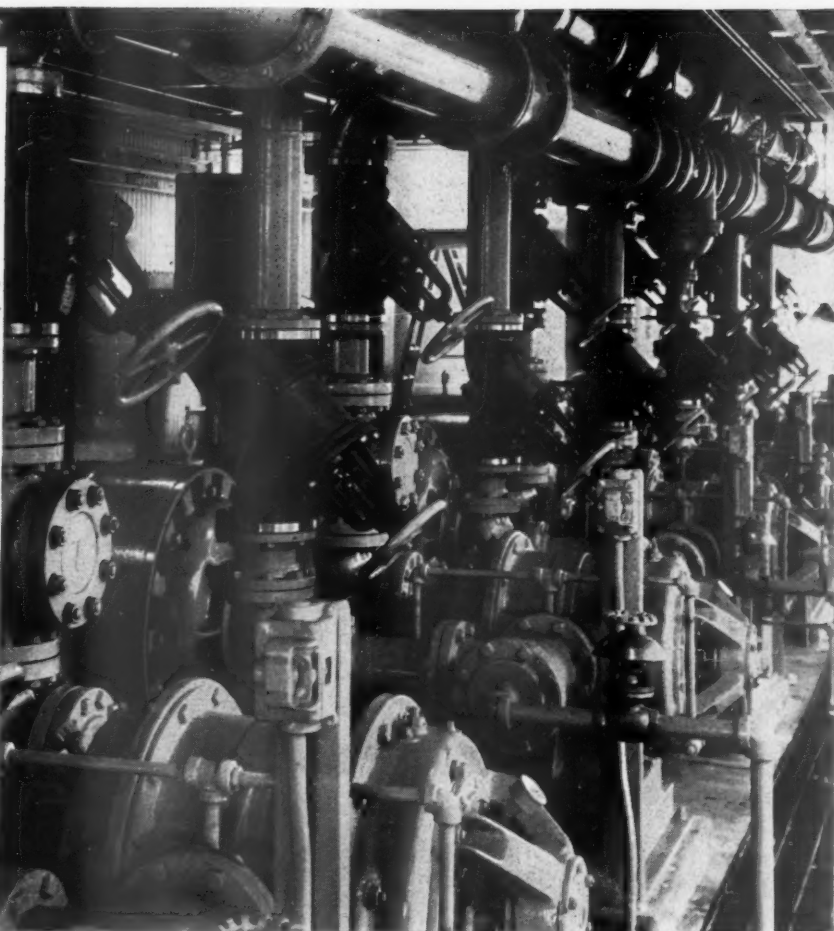
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"... the Soviet Union has  
no supreme commander in  
chief..."

RED ARMY starts on p. 12

in this affair contrasted sharply with that of several other marshals, including Vassilievsky. These marshals stayed away from the meeting to show their opposition to any intervention in the political struggle.

Zhukov has shown his growing political independence during the recent shake-up. Just as Foreign Minister Molotov was telling the Supreme Soviet that an H-bomb war would destroy capitalism but not Communism, Zhukov told William Randolph Hearst, Jr. that the existence of nuclear weapons is very dangerous to both parties. As long as they exist, he said, "somebody, some crazy person or people might use such weapons."

• **Wide Sway**—As boss of the Defense Ministry, Zhukov has all Soviet military forces under his wing—the army, navy, and air force. Zhukov himself is a strong believer in military centralization and has in the past fought pressure for separation of the Soviet air force, including its strategic wing, from the Ministry of Defense.

Zhukov's authority now stretches into the Soviet armament industry, as well. During the last few years, the emphasis of Soviet production has shifted from conventional weapons to nuclear weapons and long-range bombers. In the process, the Defense Ministry has extended its grip over the armament industry.

In the Ministry you now have "war industry generals" like Malyshev, a candidate member of the Presidium, who ran the Soviet tank industry during World War II and took over atomic production when Beria left the scene. There is also Marshall Repin, chief engineer of the air force.

This means that the Defense Ministry is assuming powers that have been exercised in the past by other ministries. As the process continues, it is bound to put the army in a stronger position in relation to the party bureaucrats.

Whether the Defense Ministry under Zhukov controls nuclear weapons is another matter. There is no doubt that Stalin reserved control over the disposition and use of A-bombs to himself, just as Pres. Eisenhower does. But today it's unlikely that any one man or ministry in the Soviet Union has the unlimited power that Stalin had in this matter. The fact is that the Soviet Union has no supreme commander in chief. It cannot have one until the present crisis of the regime is resolved.



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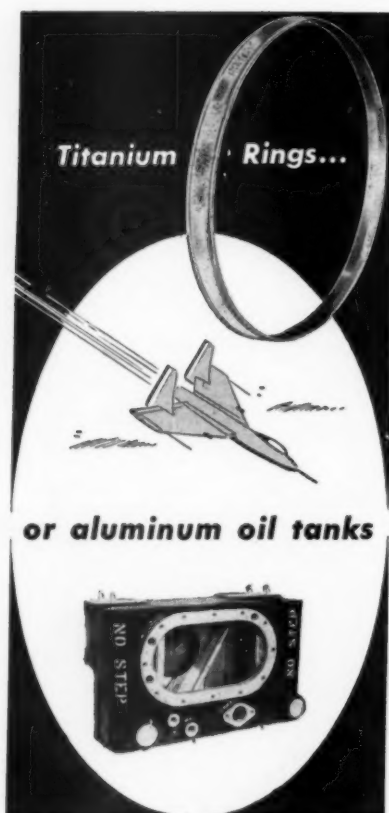
A curtain of chemical dust blacks out a portion of production profits by permitting the escape of valuable material. Cotton States Chemical Co. lifted this curtain through the use of 3 Wheelabrator Dustube Collectors in the manufacture of agricultural chemicals. One ventilates blenders and "sack-off" stations. Another ventilates a mill that grinds Benzene Hexachloride and DDT. A third handles exhaust air from a cyclone which ventilates a mill that grinds concentrates such as Aldrin and Toxaphene. Cotton States estimates recovery of at least \$65 worth of material a day, a potential annual saving of more than \$16,000. Lift the blackout on your production profits. Investigate Dustube for your plant today. Write now for Bulletin No. 372.



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## For Drivers, an Easier Life

Reporters abroad for **BUSINESS WEEK** and other McGraw-Hill publications spend a lot of time talking to businessmen, engineers, government people. Truck drivers don't often show up among their contacts. Yet talking to the drivers provides a perspective of economic conditions abroad that the businessmen and the experts often can't supply.

Five years ago Fleet Owner, the McGraw-Hill magazine of trucking, reported on the "typical" driver in the U.S. and 13 foreign countries. He was an over-the-road trucker, married with two children. This week, Fleet Owner published its second look at the highway fraternity, the world's truck drivers five years after.

Not all of Fleet Owner's 1950 drivers could be found—four had dropped out of sight completely. Among the others, the Canadian has retired in favor of a grocery store. The Frenchman is now an executive, bossing 30 other drivers. The Mexican is a capitalist, owning two stake trucks and employing two drivers; at his home are new drapes and a new sofa, a new TV set, a 1948 Pontiac.

Nearly all of the 1950 drivers checked again, and the new ones enlisted in the survey, speak of an improvement in their life. They believe the worst of the postwar problems are over. All are truck drivers because they like it, most think it promises better things for their families.

Comparing living standards is a tricky business; trickier still is trying to find an "average" or "typical" subject. Fleet Owner's editors have avoided statistical traps, and have concentrated on thumbnail profiles.

There's a tremendous gulf between the standards of drivers abroad and the U.S. man checked by Fleet Owner. Grayson Thomas, Burlington (N.C.) driver for Associated Transport, earns \$120.50 weekly (it was \$73 in 1950), has a 50-acre income-producing farm, a houseful of appliances, four nights and most of four full days at home. Only Allan Kemp, the Canadian driver, enjoys a life at all comparable.

**OTTAWA**—Kemp is a senior driver for Motorways, Ltd., and makes three round trips weekly between Ottawa and Toronto. His weekly pay is \$96, take-home is \$88, after 48 hours' work. That's more than twice the pay of Fleet Owner's 1950 Canadian trucker.

The Kemps live comfortably in a rented, well-furnished seven-room house. They don't feel able yet to afford television, but there's a fine new refrigerator, an electric stove, and a wash-

ing machine. The family car is a Pontiac of fairly recent vintage. Only savings are in Kemp's \$100 worth of life insurance, half of an education fund for son Keith. Home in Ottawa is tight—and Allan Kemp's the highest shelter cost of any Fleet Owner driver, \$28 weekly.



**LONDON**—Wally Parker (above) is a lot better off than he was in 1945, cramped in a two-room apartment. After the Parker's fourth boy was born, local authorities sent the family to the top of the waiting list for new housing. Early last year they moved into a new detached, two-story, four-room house with front and back gardens—in one of London's new suburbs. Just in time, Boy No. 5 was born soon after.

Parker is a very proud driver of a 15-ton Leyland lorry. He is at it six days a week, 64 hours (44 hours straight time). The take-home pay (including a \$4.48 family allowance) is the equivalent of \$37.10, compared to \$29.41 five years ago. After food—big item—at \$21, shelter (\$3.98), utilities and National Insurance at \$1.10, the Parkers have a tight squeeze. He takes care of five kids with what he has left.

Parker calls himself a Socialist, but believes that nationalization of trucking was a bad idea. Now, he says that nationalization proves his point. He likes painting, carpentry, putting up the garden, and listening to the radio. His new small radio (TV, the Parker family, is some time off). They've never been able to save; Parker thinks of his boys—and hard work—as his only investment in the future.

**FRANKFURT**—Hans Ott reflects the resurgent economy and self-respect of West Germany. From a 5-ton truck in 1950, he has moved up to an 8-ton diesel, pulling a big trailer. From \$19 weekly in 1950, he now earns \$34. Frau Ott, wife

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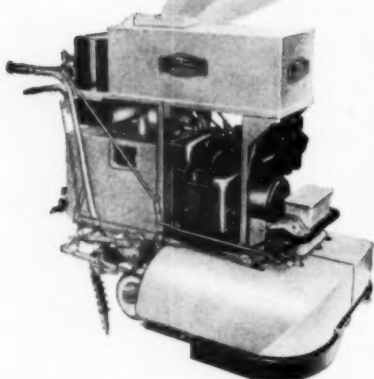
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The gasoline engine starts quickly and easily by pressing the starter button (eliminates rope-pulling). And there are no switches to set for fast or slow — slight pressure of the hand on clutch lever adjusts speed to desired rate (up to 136 ft. per minute). Two 18-inch brushes give a 36-inch scrubbing surface. One engine (2 cyl., 4 cycle, 9.4 hp., air-cooled) operates all working parts. The powerful vac performs quietly. Gasoline only is used for fuel — no mixing required.

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an office job, now earns \$15 weekly from \$9. Son Herbert (17) brings home \$15 from his service station and his 13-year-old sister has gone to work in a textile shop. Otts are eating better, spend \$28 weekly (against \$9.56 five years ago) on food, save money on shelter, which cost only \$4 weekly.

Together, the Otts have rebuilt the three-room apartment, bought a bedroom set, and while he rarely sees them, Hans Ott has three new suits in the closet. Next year, the Otts hope to begin building a little house with their savings.

Hans Ott works hard pounding the autobahns—100 hours weekly, straight time at 35¢ an hour. Like many Germans, he is completely self-sufficient, has no use for politicians or political parties. He despises Communists, dislikes trade unions "as long as the functionaries drive around in their black Mercedes-Benz cars." He looks like Americans—after 18 months as a prisoner of war in Texas.

**ROME**—Five years haven't improved the lot of Italy's Franco Luciani. Alone among Fleet Owner's 14 drivers, his battle to provide the bare necessities is as grim as it was in 1950.

Luciani had to start all over again after an accident that laid him up two months and cost him his job. He now has a good job with a large trucking firm, on the best terms an Italian driver can hope for. But they are none too good.

A 25% increase in take-home pay—to about \$38 weekly—has been eaten up by the rising cost of living. Luciani works 14 hours a day, 84 hours weekly, much of it away from home. To save money, he moved his family outside Rome to bunk in with his wife's parents (who pay the weekly rent of \$5.13). Food for Franco on the road and the Lucianis at home comes to \$33.10. After \$2.12 in taxes, there's precious little left.

Franco is not bitter; he is proud of his work. He has no faith in the messianic promises of Communists or anyone else. But he does believe that unless Italy is completely reformed, his hopes of a better life are in vain.

**SAO PAULO**—Brazil's runaway inflation hasn't hurt Jose Fernandes, or at least he doesn't think so. Like his countrymen, he views life with effervescent cheer, and he is doing what he likes to do—drive a truck. With three more payments, the Fernandes will own their own house, the small three-room half of a duplex. In it there is a refrigerator, a radio-phonograph, an accordion—all new since 1950.

Fernandes wouldn't be so well off on his pay alone—the equivalent of



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## "Here come our ears!"

There are over fifty million telephones in this country today. Their service is so much taken for granted, it's hard to realize that there *are* situations in which voice communication is both vital and close to impossible.

Take a fighting army's advance post, for example. Helpless and practically useless without lines of communication to its base. The telephone equipment it uses must be light enough for a G.I.'s back, entirely self-powered (there are no electrical outlets in a foxhole!) and proof against all climatic conditions, including water.

The object floating in to shore, in the typical scene above, is a Signal Corps "SB-22" telephone switchboard, manufactured by Stromberg-Carlson

for the United States Army.

18 by 15 by 8 inches in size, it weighs just 32½ pounds. Included in this midget space are batteries capable of long hours' continuous use, a generator which can send a ringing signal over miles of field wire, cords and plugs tested to withstand the roughest use, all wrapped up in water-tight construction which makes the equipment as dunk-proof as a fish!

To Stromberg-Carlson engineers, an achievement like this is everyday business—for industry, home and national defense. Whatever *your* interest is in the matter of communication and electronics, Stromberg-Carlson, with its 60 years' experience in this specialized field, is ready to serve you.

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AND MANY OTHER ELECTRONIC PRODUCTS FOR OUR ARMED FORCES

When you're looking  
for a material with  
unusual INSULATION  
STRENGTH...

**micarta** is basic!

MICARTA keeps powerful electrical forces in check. It is one of the best insulators known. MICARTA is tough in other ways, too. It resists moisture and corrosion. It takes repeated shocks without effect. And it retains its hard-working versatility at extremes in temperatures. How can this strong, lightweight material benefit you? Use the coupon for the complete story.

J-06580

YOU CAN BE **SURE**...IF IT'S **Westinghouse**



In the Electrical Industry  
MICARTA is serving in applica-  
tions like panels, terminal blocks  
and coil forms.



Westinghouse Electric Corporation, Trafford, Pa.  
MICARTA Division, Attention: L. A. Pedley

Sir: (Please check one)

- ☐ Please have your representative call  
☐ Please send me complete facts  
on MICARTA

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

1-10-59-55

\$68 weekly in official, but fictitious cruzeiros. That's \$22 at the free market rate, the one that counts. His daughter does sewing at home, and Sora hora Fernandes works in a toy factory, adding \$9.53 (free rate) to the family income. Food costs \$9.68 weekly, payments on the house \$2.42, direct taxes and union dues 84¢.

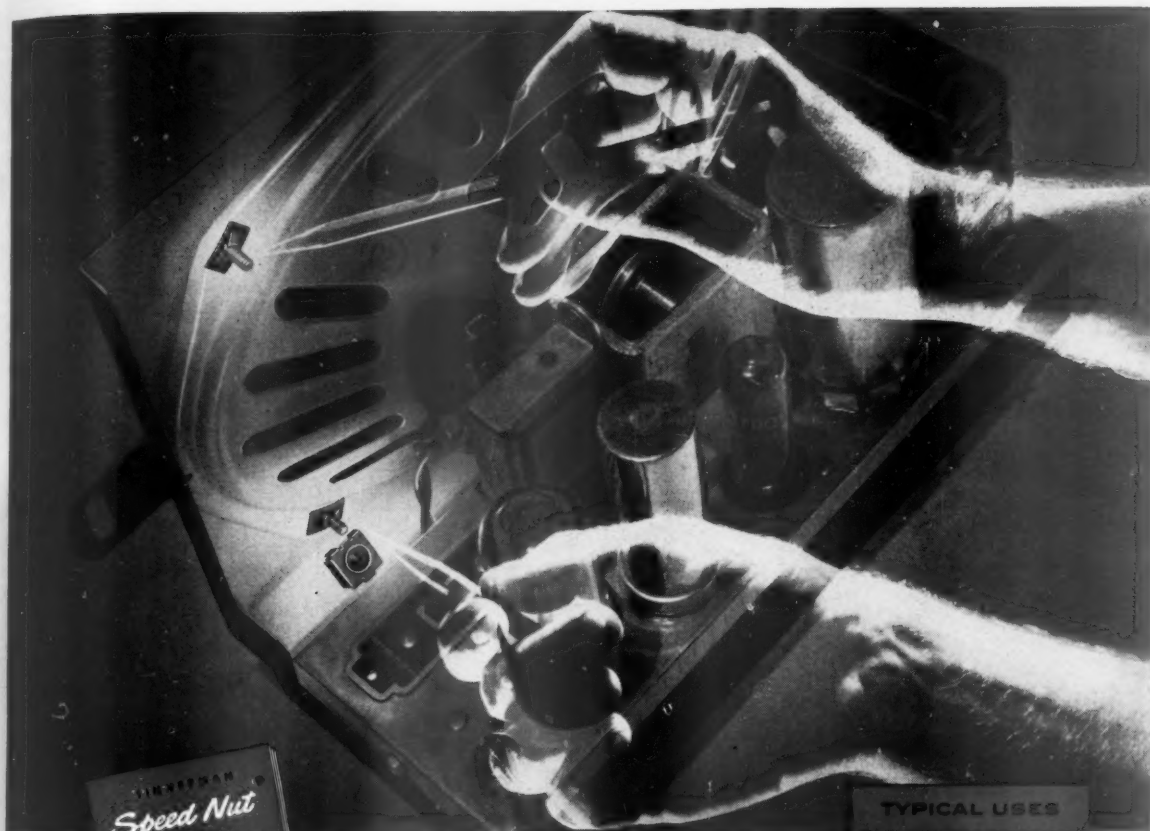
Fernandes is enthusiastic about his employer, a small prosperous trucking plying between Sao Paulo and the port of Santos. The company, says Fernandes, "uses the American system—the trust me, give me lots of freedom." Like all Brazilians, he's bullish on things Brazilian—save for food prices. "There's no reason," says Fernandes, "why rice and beans should cost so much."



**TOKYO**—Five years have been good to Toshio Takagi, his wife, and two daughters. His weekly wage, plus bonus, is up 60% to \$19.23, and while inflation has absorbed part of it, the Takagis are paying for a house they built in a relative's back yard, eating better, reading more magazines, listening to the radio, going to movies. It isn't a plush existence, but among Japanese workers, Takagi is close to the top drawer.

Food costs are up from \$5.44 in 1950 to \$9.62 now; weekly taxes are off a bit to \$1.92; after food and shelter \$5.77 remains, twice the 1950 figure.

Takagi's higher wages, better working conditions are largely the result of his union's activities. But now he is worried, maybe because he is better informed. Japan's problems of overpopulation and limited resources worry him, so does a fall-off in business that he has noted. His political convictions are much stronger than in 1950, and Takagi voted in the last election for a Right Wing Socialist because "he stood for the interests of the workers." He thinks Communist ideas and technology good, but Communist actions bad. Takagi knows: He spent several years interment in Siberia after World War II.



**TINNERMAN**  
*Speed Nut*  
SAVINGS STORIES

## How to Cut Costs 75%... with Tinnerman SPEED GRIPS®!



Assembly and material costs cut from 12 cents to less than 3 cents—a saving of 75% on just one fastening application! That's the Tinnerman SPEED NUT Savings Story for the Automatic Radio Manufacturing Company, Boston, on its CUSTOM-BUILT AUTO RADIO LINE.

SPEED GRIP Nut Retainers replaced hard-to-fabricate tapped holes and weld-type nuts as the mounting fasteners on each set. SPEED GRIPS are quickly and easily snapped into square punched holes. No special tools or skills needed! Flat Type SPEED NUTS also provide a vibration-proof attachment of speaker to baffle.

And here's a "temper-saver" for the man who installs the radio in his car. SPEED GRIPS have "mechanical hands" that hold the nut in bolt-receiving position for blind location attachments. What's more, they "float" to compensate for any misalignment in mounting holes.

There are more than 8,000 shapes and sizes of SPEED NUT brand fasteners to help you save assembly time, material costs and handling. Write today for your "SPEED NUT Savings Stories" booklet of typical Tinnerman savings to industry.

**TINNERMAN PRODUCTS, INC. • BOX 6688, DEPT. 12, CLEVELAND 1, OHIO**  
Canada: Dominion Fasteners, Ltd., Hamilton, Ontario. Great Britain: Simmonds Aero-cessories, Ltd., Treforest, Wales. France: Aerocessories Simmonds, S. A., 7 rue Henri Barbusse, Levallois (Seine). Germany: Hans Sickingher GmbH "MECANO", Lemgo-i-Lippe.

**TINNERMAN**

*Speed Nuts*  
FASTEST THING IN FASTENINGS®

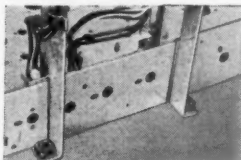
### TYPICAL USES



SPEED GRIPS are applied by hand on this automobile floor pan.



Front seat grab handle of car is ready to receive bolts in final assembly.



SPEED GRIPS furnish a firm, sturdy attachment for television chassis mounting.

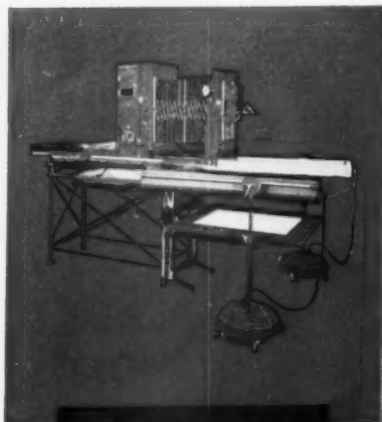


More than 8000 shapes and sizes



By every standard

*...your  
wisest  
choice!*



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The finest of equipment  
for copying and  
preserving records  
on both paper  
and film.

Business, industry and government alike are finding an increasing need for quick, accurate and inexpensive copies of records on paper . . . and are becoming equally aware of the space saving and security advantages of copying and preserving their records on film.

Here is the answer that will best satisfy both needs.

Photostat Corporation now offers the widest range of fine equipment available . . . PHOTOSTAT Photographic Copying Equipment and MICROTROPHICS Microfilm Cameras, Enlargers and Film Processors . . . for small, moderate-sized and the largest requirements alike. It is splendid equipment . . . properly sold . . . faithfully serviced. You should get all the facts before you purchase any photocopying or microfilming equipment.

Let us help with your copying problems . . . no obligation. One of our trained sales-service representatives will gladly make specific recommendations as to the best solution . . . with worthwhile savings in time and money.

Write us . . . your inquiry will receive our prompt and interested attention.

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Service offices in most principal cities  
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## West Europe's Growing TV

NETWORK AUDIENCES NOW A REALITY—

Eurovision network now joins British, French, Belgian, Dutch, German, Danish, Swiss, and Italian national systems by microwave connections through "translator" at Lille, France.

Country	TV Receivers Now Operating	Country	TV Receivers Now Operating
Britain	4½-million	Belgium	4,000
Italy	155,000	Denmark	3,000
Germany	99,634	Spain	700
France	100,000 (est.)	Norway	300
Sweden	5,000	Austria	100
Switzerland	4,457	<b>Total</b>	<b>4,876,191</b>
Netherlands	4,000	<b>U.S. Total</b>	<b>35.5-million</b>

©BUSINESS WEEK

## Video Invades Continent

Europe's 65 TV transmitter locations spotted on the map on the opposite page may not look impressive compared with the 443 operating stations and 130 more under construction in the U.S. But to Europeans, just hitting their economic stride after World War II (BW—Nov.13'54,p140), they represent phenomenal progress.

Last year was a big one for European TV. It was the year the Continent became conscious of what TV really is. Even in Britain, where the world's oldest station at Alexandra Palace, London, began experimental telecasts in 1936, it took the Coronation telecasts in 1953 to fire the public's imagination.

• **Crusader**—The big push came last June, when the first international TV network was set up between six Western European countries. Eurovision, as the chain is called, was sparked by the same French "European" spirit behind the Schuman Coal and Steel Community, the European Assembly, and the ill-fated European Defense Community (EDC). No one expects Eurovision to do what a dozen European statesmen failed to do: Weld West Europe into a solid bloc. But if Europeans, speaking their own languages and sitting behind their own national boundaries, could all watch a wide range of TV programming, a new cultural bond could be achieved.

A continental network, however, can be built only on national units, and European countries still are a long way from adequate national TV systems. To build them, each Western European country needs (1) a transmission system covering as much of the country's population as possible; (2) a schedule of programs sufficient to draw an audience; and (3) receiving sets priced within

the reach of the whole population.

Europe went far last year in setting up national TV coverage. Programming, largely paid for during the days of radio by taxes levied on sets in use, is a harder nut to crack because of the enormous expense of TV compared to radio. Until the European standard of living rises appreciably, only a dent can be made in the problem of supplying sets at a price the average worker can afford. But even here, manufacturing economies show progress.

### I. Transmission

Britain, which sets the pace in European TV, now has nine transmitters in operation and another nine will be added over the next two years. By the end of this year, 95% of the country will be within range of a transmitter. These stations are all owned and operated by the government's British Broadcasting Corp.

In France, the government-owned Radiodiffusion—Television Francaise now has transmitters located in Lille, Strasbourg, Lyon, Marseilles, and Metz, as well as in Paris where programs originate. Meanwhile, four privately owned stations have been set up around France's borders in the Saar area, Luxembourg, and Monaco (Monte Carlo).

In Germany, a 13-transmitter chain financed by semi-private government companies covers the greater part of the Federal Republic, and West Berlin. Six more will be completed by yearend. Some idea of how much of the country is covered is given in the government plans to complete a chain of 30 transmitters.

• **\$26-Million Program**—Italy has had the most spectacular growth, since there





was practically no TV there in 1953. Now three stations are operating with an additional five transmitters covering most of north and central Italy—about 45% of the population. By the end of 1956, the government intends to extend its transmission facilities south to Naples, Sardinia, and Sicily, and northeast to Trieste, bringing about

85% of the population within range. A \$26-million expansion plan for 30 stations has already been approved.

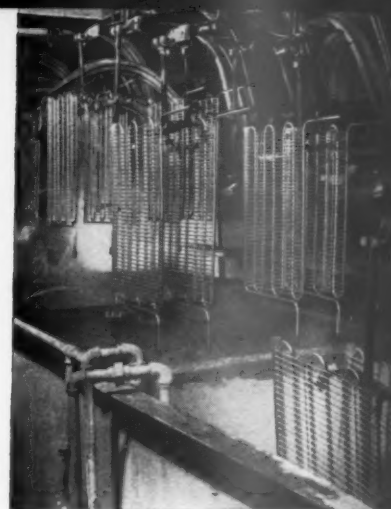
The Swiss, in their conservative way, haven't decided whether TV is here to stay. Experimental stations are operating in Zurich and Geneva, and others are being built in Basle, Berne, and atop the Dole Mountain between

Geneva and Lausanne. They have particular transmission difficulties because of the mountains, and one mobile transmitter is now being used, with another on order. When all of these are operating, about half of Switzerland's 4.7-million will be within range of a transmitter.

The Netherlands has only one trans-



**1. The Shopping Carrier** you use at supermarket or grocery, made of welded steel wire, may have come from United Steel and Wire Company where a variety of models are produced at a 500-a-day clip. Finish must be extra smooth to prevent torn packages.



**2. Home Freezer Shelves** are given a bright chrome finish on this automatic plating line. Steel wire must be clean and smooth as plating will magnify the slightest surface imperfections.

**3. Ice**  
Once w  
rosion. U

## Steel Wire

Truly, the uses for steel wire seem inexhaustible, and Pittsburgh Steel Company makes wire for nearly all of them.

Yet today a whole new field of uses has emerged, one that is expanding so fast there has been little effort to tabulate its growth. This is the market for formed wire products. The uses of steel wire have taken on a whole new dimension as more and more formed wire products are designed and built for everything from grocery carriers to bird cages.

**• Creative Minds At Work—**Formed wire products are not entirely new. Perhaps they began with the first coat hangers, bustles, or wire-backed chairs. But since World War II, the myriad uses produced by creative designers have opened broad new horizons. Today you find steel wire going into such diverse products as utility containers, modern furniture, letter holders, wall decorations, and outdoor grilles.

To quickly grasp the size of this new dimension, take a look at one of the nation's leading producers of formed wire products—United Steel and Wire Company of Battle Creek, Michigan. Since the end of World War II, it has

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3. Ice Cream will be frozen in these hardening cases. Once welded, the wire is galvanized to protect against corrosion. United holds forms and jigs for 400 special sizes.

4. Your Milkman may deliver your milk on one of these wire bottle crates made by United at a rate of 3,000 daily. Sturdily built, yet light in weight, they have self-cleaning features.

## Wire Takes On A New Look

nearly doubled the size and scope of its operations.

In one year United produces some 4,500,000 shelves for several well-known makes of home refrigerators; 875,000 shelves for commercial refrigerators; 900,000 milk crates and ice cream hardening cases; 750,000 baskets of various types; 100,000 grocery carriers; and additional hundreds of thousands of point-of-sale display stands; outdoor grilles; beverage cases; dish racks; and bird cages. To make these products, United uses about 15,000 tons of wire annually—an important share of it from Pittsburgh Steel Company.

Structural advantages of formed wire products include strength and rigidity with light weight. Wire construction provides for self cleaning and permits air or liquid circulation.

• **Importance Of Quality**—Steel wire that goes into these products ranges in sizes from nearly one-half inch to less than one-tenth of an inch in diameter. It has to be strong, yet ductile enough for easy welding on intricate automatic multiple welding machines. It has to have an extra smooth and clean surface to permit chrome and nickel plating, galvanizing or painting,

and produce an attractive yet durable finish.

To produce this wire, United relies on wire makers with long know-how. Pittsburgh Steel Company, one of United's important suppliers, has had more than 50 years' experience in wire making. Its range includes everything from large diameter basic bright wire to intricate specialty wires as fine as a human hair.

Pittsburgh Steel has long produced quality spring wire including low, medium and high carbon, and alloy; M. B. hard drawn; and oil tempered. It has a good reputation for production of quality ACSR core wire for cable, welding wire, rope wire, cold-heading wire, flat and shaped wire, rivet wire, screw wire, and nails. Its

fabricated products include a full range of farm and lawn fence, chain link fence, and welded wire fabric for construction.

This combination of know-how and modern facilities enables Pittsburgh Steel to supply the kind of wire United needs for its broad line of formed wire products.

If you are making formed wire products, why not look into the opportunities with Pittsburgh Steel's basic bright wire and plating quality wire? Chances are good it will be worth your while to call the nearest district sales office to have a salesman call to discuss your problems and offer suggestions, or to give you information on prices and delivery. You'll find him ready to serve you right now!

*"Everything New But The Name"*

## Pittsburgh Steel Company

Grant Building • Pittsburgh 30, Pa.

DISTRICT SALES OFFICES: Atlanta • Chicago • Cleveland • Columbus • Dallas  
Dayton • Detroit • Houston • Los Angeles • New York • Philadelphia • Pittsburgh  
San Francisco • Tulsa • Warren, Ohio. PLANTS: Monessen, Pa. • Allenport, Pa.  
Akron • Los Angeles • Unionville, Conn. • Warren, Ohio • Worcester, Mass.



Write for your copy of the color brochure "The New Pittsburgh Steel Company."



"Mechanizing  
with  
**GERLINGER**  
has cut our  
handling costs  
**50%**"

**CITY JUNK &  
SUPPLY COMPANY**  
HOUSTON, TEXAS

CASE HISTORY No. 312  
FROM OUR FILES

...maintains one of the most modern scrap handling systems in the country, processing everything from shop turnings to metal structures. Two Gerlinger Straddle Material Carriers transport scrap metal in specially-built bins from industrial plants in Houston area to owner's concentration yard. Loading and unloading was formerly handled manually. Success of the Gerlinger system of material handling is indicated by the owner's statement: "We've cut our per-ton cost of handling scrap 40% to 50% by use of the Gerlinger Carriers!"



ABOVE PICTURE shows how City Junk formerly loaded shop turnings with manual labor, resulting in much loss by scattering.

ABOVE, RIGHT: Scrap is now loaded in metal bins of 12-ton capacity. Two Gerlinger Carriers transport filled bins over city streets to scrap concentration yard—at great savings in time and labor.



For your free copy of  
Gerlinger Carrier  
catalog showing  
operations in your  
industry drop a card  
today to:



**GERLINGER CARRIER CO., DALLAS, OREGON**

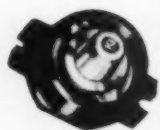


### KLIXON Protectors Provide Insurance Against Motor Burnouts

ST. LOUIS, MO.: Mr. George Wester of Wester Electric Company, strongly recommends Klixon protected motors. His experience shows that Klixon Protectors provide positive overheat protection. He says—

"We have used Klixon Protectors in the repair of electric motors and our experience has shown that they provide positive protection against burnouts. For that reason we strongly recommend Klixon protected motors in our new motor sales as insurance against burnouts."

The KLIXON Protector, illustrated, is built into the motor by the motor manufacturer. In such equipment as refrigerators, oil burners, washing machines, etc., they keep motors working by preventing burnouts. If you would like increased customer-preference, reduced service calls and minimized repairs and replacements, it will pay you well to ask for equipment with KLIXON Protectors.



Manual reset

**KLIXON**

METALS & CONTROLS CORP.  
SPENCER THERMOSTAT DIV.  
2602 Forest Street  
Attleboro, Mass.

**CARBIDE TOOL  
PRODUCES  
80,000 PIECES  
instead of 25,000  
after**

**VAPOR BLASTING**

SHARPENED

VAPOR-BLASTED

Photo shows edges of two similarly-ground Carbide Tools magnified 125 times. Lower Vapor Blasted tool produced 320% more pieces than the "as ground" tool. Better part finishes also were achieved by the true cutting edge produced by Vapor Blast blending of grind lines.

Vapor Blast Liquid Honing can pay for itself in your toolroom or machine shop—and many other operations. Get the facts today, or ask for a call from your nearby VB representative.



**VAPOR BLAST  
MFG. CO.**

3043 W. Atkinson St.  
Milwaukee 16, Wis.

mitter operating, but the government plans six additional repeater installations. While in Belgium, two government transmitters are operating in Brussels and one each in Liege and Antwerp.

In Scandinavia, Denmark has a transmitter in Copenhagen that also can be seen in southern Sweden, and another is under construction. That will bring about half the country's population of 4-million people, within range.

Sweden now has two Stockholm transmitters broadcasting the same program and is awaiting a parliamentary report on proposals to expand its service. Norway has one experimental station operating in Oslo, but the country has the same difficulty as Switzerland—mountains and isolated communities.

Spain has one station operating. Austria has no operating stations, but one will be built in Vienna this year.

## II. Programing

European programing embraces some fundamental concepts that U.S. telecasters don't and can't accept. In Europe, the direction of most of the government radio corporations, which are now guiding TV as well, is studded with intellectuals dedicated to lifting the "cultural norm." Very often entertainment—the primary purpose of radio and TV, as Americans see it—is lost in the crusade to educate the audience.

Still BBC's 40 hours of weekly telecasting also includes probably the best children's programs in the world.

A visiting American will see familiar faces once in a while: Bob Hope, Ava Gardner, and other movie stars. U.S. films, for example George Raft's "I Am the Law," and Amos 'n' Andy, are shown. The British version of Columbia Broadcasting System's "What's My Line?" is a great favorite.

But BBC's TV, like BBC's radio, is a very British operation of the kind that Americans can't always understand. For example, the whole concept of split-second timing (8-sec. commercials during "station breaks" in the U.S., for example) is unknown in Britain. It's only recently that a real effort has been made to program to time limits.

• **Hobson's Choice**—If a British TV-viewer doesn't like what he sees, there is little he can do about it. Some areas have three transmitters within range now, but all are telecasting the same program on different channels.

It was this lack of choice and the government's reluctance to finance still another network that finally won a go-ahead last year for a new type of sponsored service. Over tremendous opposition in Parliament and from some newspapers and periodicals, an Inde-



# Cold facts about hot truck tires

**When your tires start "running a temperature," they also run up your costs. Here's what you can do about it:**

Every trucker knows what happens to a tire running over a hot surface under a heavy load, its body cord flexing hundreds of times per minute. The tire heats up . . . plenty.

The trouble is that few truckers realize what extremes this heat build-up reaches and how very damaging and costly that heat can be.

Tire "temperatures" of well over 200°F. are not at all unusual. That's enough heat to sap ordinary body cords of much of their strength and resilience permanently. Then every blow from rocks and road hazards becomes a *damaging* blow that, in itself, can make a tire unfit for recapping.

Hot-tire air pressures can build up as much as 33%. And at that point every weakness already in your tires becomes a *dangerous* weakness that literally multiplies the possibility of blowouts.

## **Million-dollar "heat bill" for truck operators**

These are the facts behind the astounding "heat bill" the trucking industry is paying for its tires. Even conservative figures run the cost well

into the millions. But the most astounding fact is that practically all of this expense is needless.

Today, new materials, new processes, new tire design and construction methods make it possible for Kelly-Springfield to bring you truck tires that make the expense and danger of heat failures a thing of the past.

Among these factors Nylon body cord is one of the most important. Nylon can take extreme, sustained heat without losing its superior resilience or strength (about twice that of other cord fibers). This permits lighter, thinner tire bodies which, in turn, generate far less heat.

## **Who? How? What? You need to know!**

True, Nylon is now featured on many makes of tires. But it's a mistake to think that Nylon, in itself, solves the heat problem automatically. "*Who* builds the tire and *how*?" is fully as important as what material is used.

Kelly-Springfield, for example, subjects every inch of this wonder cord to a costly, exacting process of chemical dips, wet stretching and heat stabiliz-

ing at the precise point of optimum strength and resilience.

And, of course, the tire body this cord goes into must be precision-built *throughout*—built with emphasis on strength and cool-running properties in every detail. On the Kelly Nylon Super Armor Trac a special tread compound, tread design and even the design of the sidewalls contribute importantly to cooler running and longer tire life.

## **Evidence from truckers' own cost records**

Actual case histories from truckmen the country over show that these Kelly developments have not only stopped heat failures for good, but have decreased tire cost-per-mile to record lows, delivered far more recaps per carcass, and paid an invaluable dividend in safety.

Yes, the cold facts prove again and again that Kelly Nylon Cord Truck Tires are your best bet if you want to beat the high cost of heat. Let us give you all the details. Just write: The Kelly-Springfield Tire Company, Cumberland, Maryland.

**There's a tough Kelly for every trucking job!**



THE KELLY-SPRINGFIELD TIRE COMPANY, CUMBERLAND, MARYLAND

# Help Lighten the Load During Personnel Transfers... USE ATLAS VAN-LINES

Atlas Agents are specialists in shouldering burdensome moving details. They have to be. They've been carefully trained in all the ways that make moving easier, pleasanter, smoother.

They will pack everything to be moved—from delicate glassware to finest furniture. Not only more safely, but often at a considerable saving too—for efficient packing means lighter

weight. And they'll unpack just as carefully at the new residence.

Anything you can do to help make moving easier for busy executives will save executive down-time.

The best thing you can do: call your local Atlas Agent. You'll find his name in your classified telephone directory. Or write us, and we'll have him contact you promptly.



**Clothing** on hangers is packed in specially designed dustproof wardrobes to make sure it arrives clean and wrinkle-free.



**Furniture** and major appliances are wrapped and packed with painstaking care... unloaded just as carefully... and then placed exactly where desired.



**All mattresses** are moved flat and are packed in strong, sturdy cartons that will protect both springs and outer fabric from any dirt or damage.



## ATLAS VAN-LINES, INC.

A Long Distance Moving System

General Offices: 7530 South Western Avenue, Chicago 20, Ill.  
Agents in all principal cities

pendent Television Authority will begin to telecast from three London transmitters later this year. Additional outlets are also planned for Birmingham and possibly Manchester.

In deference to the anti-commercial sentiment in the country, the new ITA will operate ever so circumspectly. Foreign program contractors—including one of Britain's three big motion picture house chains, Granada Theatres (BW-Oct. 9 '54, p158)—have been designated to operate ITA stations. But no agreement has been signed yet pending negotiations over rates and other conditions.

Speculation has it that the British advertiser will have to pay about \$2,800 per min. That's stiff compared with \$1,575 for a "spot" over National Broadcasting Company's New York outlet, WRCA-TV, during top evening hours. A total of 6 min. of commercial time will be allowed during every hour, the same standard as the self-regulatory statute of the U.S. National Assn. of Radio & Television Broadcasters.

• **Pilot**—How the ITA setup works out in Britain will probably dictate whether any of the governments on the Continent will try a sponsored system. The Swiss, for example, have estimated that a modest, regular TV schedule for their country—complicated by the fact that there are three national languages—would cost more than \$2-million a year.

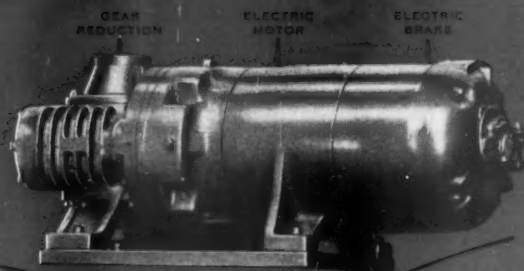
The new commercial stations at Saarbrücken, Luxembourg, and Monte Carlo hope eventually to match the French government's RTF network with a sponsored one. But there is no inclination in French government circles to O.K. such a proposal now.

Financial support is not the only programming problem that faces European telecasters. In addition to the language difficulties of Switzerland, Belgium, and other multilingual areas, there are political questions. The Netherlands has five broadcasting corporations operating government-owned facilities, organized along political lines: Liberal, Socialist, Roman Catholic, Calvinist, Liberal Christian. If an expansion is planned for the present 60 hours of TV a week, splitting the time between these five operating companies would take a Solomon.

### III. Receiving Sets

Whether or not European advertisers will be willing to pay the high costs of an extensive sponsored TV also will depend on how large an audience they can reach. The figures on the number of sets now operating in each country (chart, page 144) show how far most of West Europe has to go.

Britain has 44-million sets now operating, and British manufacturers sold over 1.2-million sets last year (BW-Jan. 29 '55, p108). They hope for an

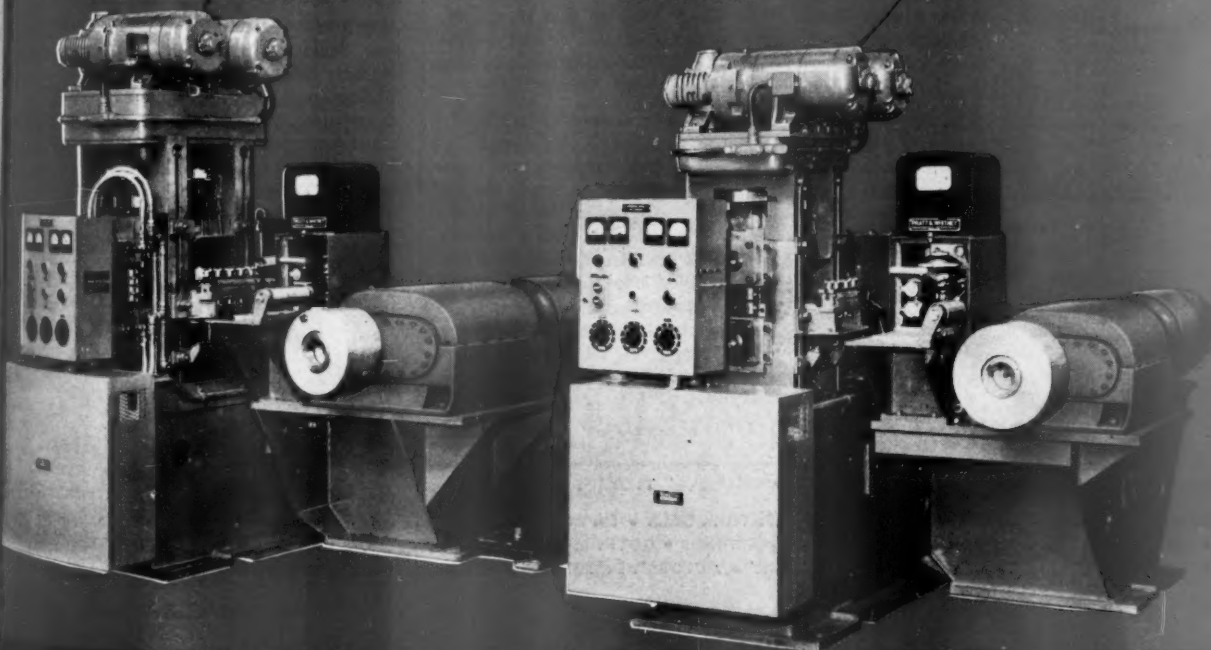


See how easily the standard electric motor, standard gear reduction, standard electric brake combine into a drive that gives the RIGHT horsepower, the RIGHT shaft speed, the RIGHT features . . . all in one compact unit. Nowhere else will you find power units that are so flexible, so easily adaptable, and in such a wide range of types and ratings.

Master power drives are available in thousands and thousands of ratings ( $\frac{1}{8}$  to 400 HP) . . . in open, enclosed, splash proof, fan cooled, explosion proof . . . horizontal or vertical . . . for all phases, voltages and frequencies . . . in single speed, multi-speed and variable speed types . . . with or without flanges or other special features . . . with 5 types of gear reduction up to 430 to 1 ratio . . . with electric brakes . . . with fluid-drive . . . with mechanical or electronic variable speed units . . . and for every type of mounting . . . Master has them all and so can be completely impartial in helping you select the one best power drive for you.

**standard units  
easily combine into  
special purpose drives**

**THE MASTER ELECTRIC COMPANY • DAYTON 1, OHIO**



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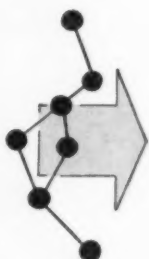
# FACTOGRAPHS

## The Aircraft Industry

NO. 2 OF A SERIES



Too often the growth of the aircraft industry is thought of only in terms of equipment for national defense. However, the tremendous increase in civilian passenger miles flown is equally impressive. This figure has grown from 1,052,156,000 miles in 1940 to 14,619,000,000 miles in 1953. And according to the experts, 26,675,000,000 civilian passenger miles will be flown in 1965.



Today, research planes fly more than 1600 miles per hour. And with these supersonic speeds come new problems of temperatures and stresses. The temperature at Mach 3.5 (3½ times the speed of sound) is 800° F. Turbine blades operate at temperatures of around 1400° to 1500° F. The combination of heat and speed produces a phenomenon known as "creep"—an actual movement of the molecules in the metal. The Riehle Testing Machines Division of A. M. and M. has developed a Creep Testing Machine which determines the stress required to rupture a metal as well as the creep properties of metals up to the point of rupture.



Not everyone is aware of the growth of air cargo and express freight during the past few years. In 1945, 23,546,000 ton-miles were flown. In 1953 this figure had stepped up to 175,600,000 ton-miles.



Remember when commercial planes cruised at about 150 MPH at an altitude of something like 10,000 feet? Instrumentation wasn't such a problem then. But it's different today with commercial jet airliners operating above 36,000 feet at speeds of 450 to 500 MPH. Split-second decisions are imperative. So, with instrumentation even more complex, the next step was simplification of the instrument panel and reduction of its area. In this respect, United States Gauge Division of A.M. and M. has contributed materially, providing various aircraft instruments including the USC syncro-indicator which occupies only ¼ of the space previously required.

19

American Machine and Metals, Inc. comprises nine divisions, a number of which find an important market in the expanding aircraft industry. Each manufactures a line of related products and each has been serving industry from a score to more than 100 years. All divisions benefit materially from the interchange of ideas, experience, know-how and facilities of the entire group. This plan has proved remarkably advantageous to the company and to the customers of all divisions.



## American Machine and Metals, Inc.

233 BROADWAY

NEW YORK, N. Y.

**DIVISIONS:** NIAGARA FILTERS • TOLHURST CENTRIFUGALS • DE BOTHEZAT FANS  
• UNITED STATES GAUGES • RIEHLE TESTING MACHINES • GOTHAM INSTRUMENTS  
• TROUT MINING • TROY LAUNDRY MACHINERY • AUTOBAR DISPENSER SYSTEMS

other good year in 1955, maybe even topping the 2-million mark. There are about 13-million radios in Britain.

TV sets now retail in Britain for about \$210 for a 17-in. table model. They are sold directly from manufacturer to retailer and the retailer's markup is about 30%. The retail price, however, also represents the 50% purchase tax. Some British manufacturers, notably Pye, Ltd., have toyed with the idea of cracking the U.S. market.

They have better hopes for the Latin American TV market, largely dominated until now by the U.S.

• **Price Stymie**—On the Continent, the high cost of sets has been one of the greatest handicaps to the development of TV. The French adopted the 819-line receiving system (Britain 405 lines; U.S. 525; rest of Europe, 625), at least in part, to keep out foreign competition. A 17-in., one-channel set in France costs the equivalent of two to three months of a worker's pay.

German manufacturers who, two years ago, were saying they could not produce a set for less than \$240 are changing their minds. Last week a Frankfurt mail order house advertised a small table model for \$152. And at least one big German company, Siemens, has made headway in Italy against U.S. competition.

The U.S. exported 6,568 sets to West Europe last year, more than 5,000 of them to Italy. The figure was about half of 1953 sales, indicating that Italian manufacturers are fast moving in on the market.

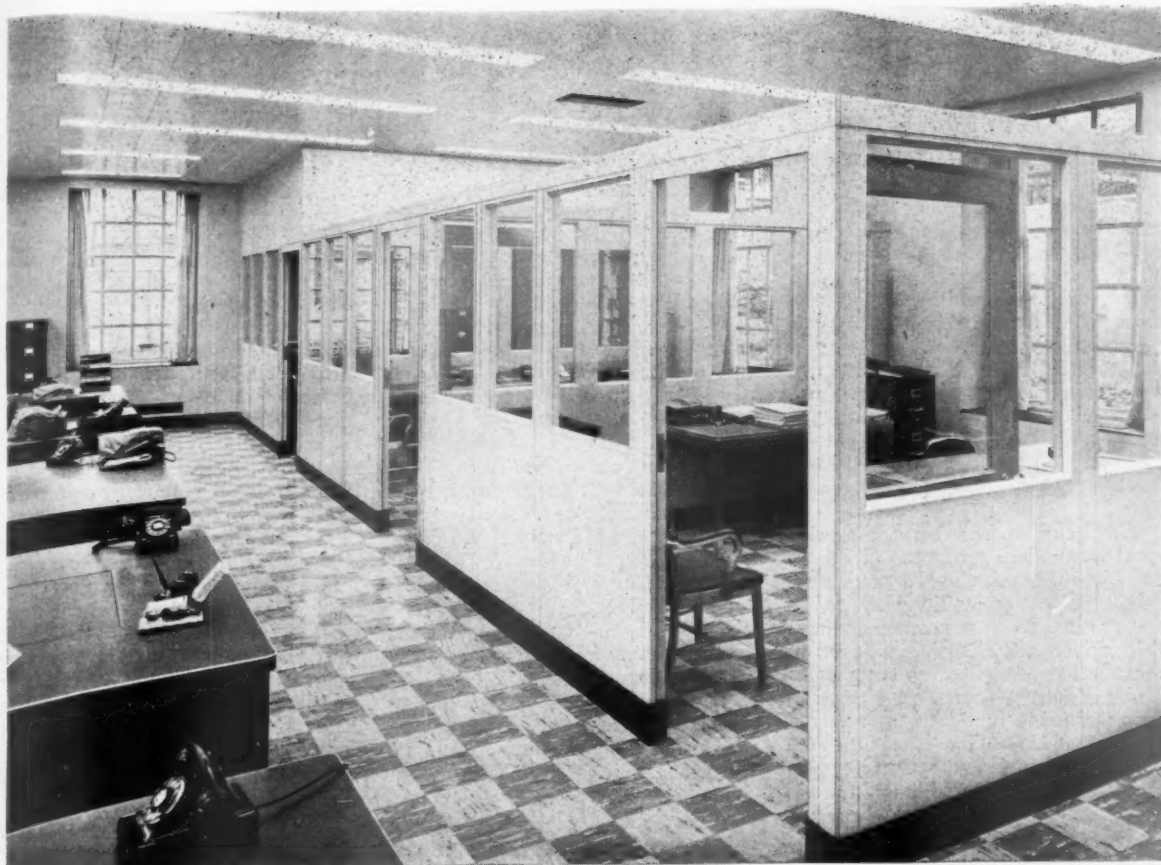
### IV. Future

Programing and the price of sets in the long run may be one of those chicken-and-egg arguments, much as color TV has been in the U.S. As programs get better, European workers may decide to put a bigger percentage of their budget into TV sets.

This past summer, largely through Eurovision, the programing all over the Continent took a more popular bent. International soccer matches in Geneva, tennis at Wimbledon, ski jumping at Chamonix in Switzerland, the six-day Tour de France bicycle race, a swimming meet in Copenhagen, were all brought to the eight European countries hooking up with Eurovision. Such "spectaculars" as Christmas Mass from Notre Dame in Paris, the Pope speaking on Easter Sunday from the Vatican, and the opening of Parliament in London all were seen on Eurovision.

The potential of the network, as seen by such people as Jean D'Arcy, general manager of France's RTF, is tremendous: an estimated 220-million viewers. The influence such a network could have is obvious.





Firemen's Mutual Insurance Company, Providence, R. I.

Cram & Ferguson, Architects

Gilbane Building Co., Inc., Builders

## Mills Movable Walls provide space control, insure efficiency at Firemen's Mutual

Firemen's Mutual Insurance Company was founded in 1854. It is only natural that this organization with more than a century of know-how and experience back of it would provide for constant efficiency in the layout of space in its new headquarters. All of the building's interior walls are Mills Movable Metal Walls.

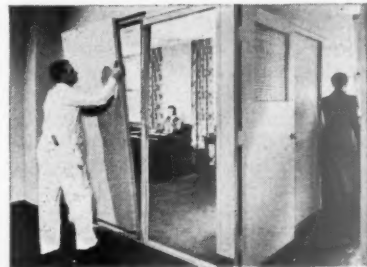
Mills Walls promote efficiency — both present and future. They enable you to get maximum productivity through the most effective use of space. When changes in space requirements make new layouts advisable, these walls can be taken down, moved and re-erected quickly and easily, with a minimum of labor and at very low cost. Changes can usually be completely made overnight or during a week end.

As modern and attractive as they are efficient, Mills Walls combine this

complete flexibility with distinctive architectural design and structural stability. They are thoroughly insulated and sound-proofed and provide easily accessible lay-in raceways for electrical wiring and controls.

Available in a wide range of pleasing modern colors and finishes, Mills Walls have baked-on enamel surfaces specially treated to eliminate all harsh light reflections. They require no maintenance whatever except occasional washing to keep them looking always their efficient best.

THE MILLS COMPANY  
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Mills Walls can often be moved in a matter of hours — without dust, debris, commotion or interruption of normal business routine.

Write for the new 68-page Mills Catalog—it's a practical work book on Space Control.

MILLS  METAL WALLS

# For London, U. S. Securities

**British Treasury releasing for sale a \$15-million sprinkling of stocks, bonds taken over during war.**

U. S. stocks and bonds, some \$15-million worth, have begun to filter into London's starved and skimpy market for American securities.

The seller is the British Treasury, through the Bank of England and the "government broker" on the floor of the stock exchange. The securities are a small fraction of the Treasury's hoard, and they will be introduced little by little. Later, the Treasury may put another large batch on the market. How much—and when—is the Treasury's secret.

The securities have been in government hands since the Battle of Britain days, when London was desperate for dollars. Holdings in 230 U. S. stocks and bonds were requisitioned from British investors; all holdings in 68 of them were sold by the government to realize dollars. Much, or all, of the rest were pledged in July, 1941, as collateral against a \$425-million loan from the Reconstruction Finance Corp.

Of the total loan, \$390-million was drawn down, and the loan was repaid in 1951, five years ahead of schedule. Dividends and interest on the portfolio were apparently enough to pay off the debt without liquidating the stocks.

• **Uncertainties**—You have to say "apparently" because the complete history of the portfolio has never been disclosed. Washington experts believe that some piece of the original amount was sold—or returned to owners—before 1951. In 1949, Sir Stafford Cripps reported that the market value of the vested securities was \$335-million. In 1951, it is known that a small amount was returned to original owners—how much, again, wasn't disclosed. Chancellor of the Exchequer Richard A. Butler said this month that he had made only "minor changes in the portfolio from time to time." There was a freshet of rumors in 1952 that large swaps had been made. The Treasury was mum.

The process of selling the first \$15-million began slowly Feb. 5. The government broker, William Mullens, demanded a 3½% premium over sterling equivalent of New York prices, compared with the normal London market premium that day of 3%. The premium reflects the restricted amount of stock available to the British market. Because of exchange controls, the total of U. S. securities in Britain can increase only marginally, through stock rights and stock dividends. When demand for U. S. stocks jumps, the supply can't

rise—so the prices usually include a daily fixed premium over New York prices.

In the past five years the premium has scooted up as high as 20%, as low as 2%. Early this week it was at 2½%.

In the \$15-million batch now going into the market are five bonds, 43 common and preferred stocks. Bonds include American & Foreign Power 5s, Santa Fe 4s, Southern Railway 6½s. Among the stocks are American Cyanamid, American Power & Light, American Tobacco, Chase National Bank, Coca-Cola, International Harvester, Macy's, Procter & Gamble, Wm. Wrigley, American Smelting & Refining, Anaconda Copper, Chrysler, Westinghouse Airbrake.

• **Below Prewar**—Over-all, total holdings in Britain of U. S. corporate stocks has been reported by the Commerce Dept. at just under \$750-million, at the end of 1953. The past year's bull market has probably carried it up further, though it is still far below the

prewar British portfolio of close to \$1.5-billion in 1937. Corporate bond holdings are very much less; at the end of 1953 only \$200-million in market value were held throughout the world outside the U. S.

Insofar as they specialize in anything, British investors in the past have seemed especially interested in rails and utilities. Now industrial blue chips rank high as the most popular dollar stocks in London. The popularity list now includes Bethlehem Steel, Chrysler, Crown Zellerbach, General Motors, Gillette, New York Central, Shell Oil, Standard Oil (N. J.), U. S. Steel, Woolworth. London brokers didn't quite trust Wall Street's bull market through 1953 and early 1954, but warmed up as the danger of a U. S. recession passed.

Certainly the new Treasury sell-off will expand the limited London market for U. S. stocks. How much is the question. City observers point out that a large proportion of U. S. stocks are in the tight grasp of long-term investors. On an average day it's hard to buy or sell \$2-million to \$3-million without pushing the price far out of whack.

## Acid Test for "Buy American"

**Eisenhower will probably have to decide on low British bid . . . Canada keeps its job at home.**

The Buy American controversy is bubbling again. English Electric Co. Ltd. has underbid Westinghouse by 13.8% on a \$5-million Defense Dept. contract for supplying generators to Chief Joseph Dam.

It's a major test. In December Pres. Eisenhower announced new Buy American rules—cutting the margin by which foreign suppliers must underbid U. S. producers down to between 6% and 10% from the traditional 25% (BW-Dec. 25 '54, p. 54). The Chief Joseph contract is the first big case to come up since.

English Electric's bid is well under the wire. But the contract isn't assured. The President's order has loopholes that permit agency chiefs to throw the contract to Americans, ignoring the price, in the interests of national security, or to relieve unemployment.

The Defense Dept. is under heavy pressure to use the "unemployment" loophole, hand the business to Westinghouse. The company says it would make the six generators in the Pittsburgh area, classed as a region of substantial unemployment by the Labor Dept.

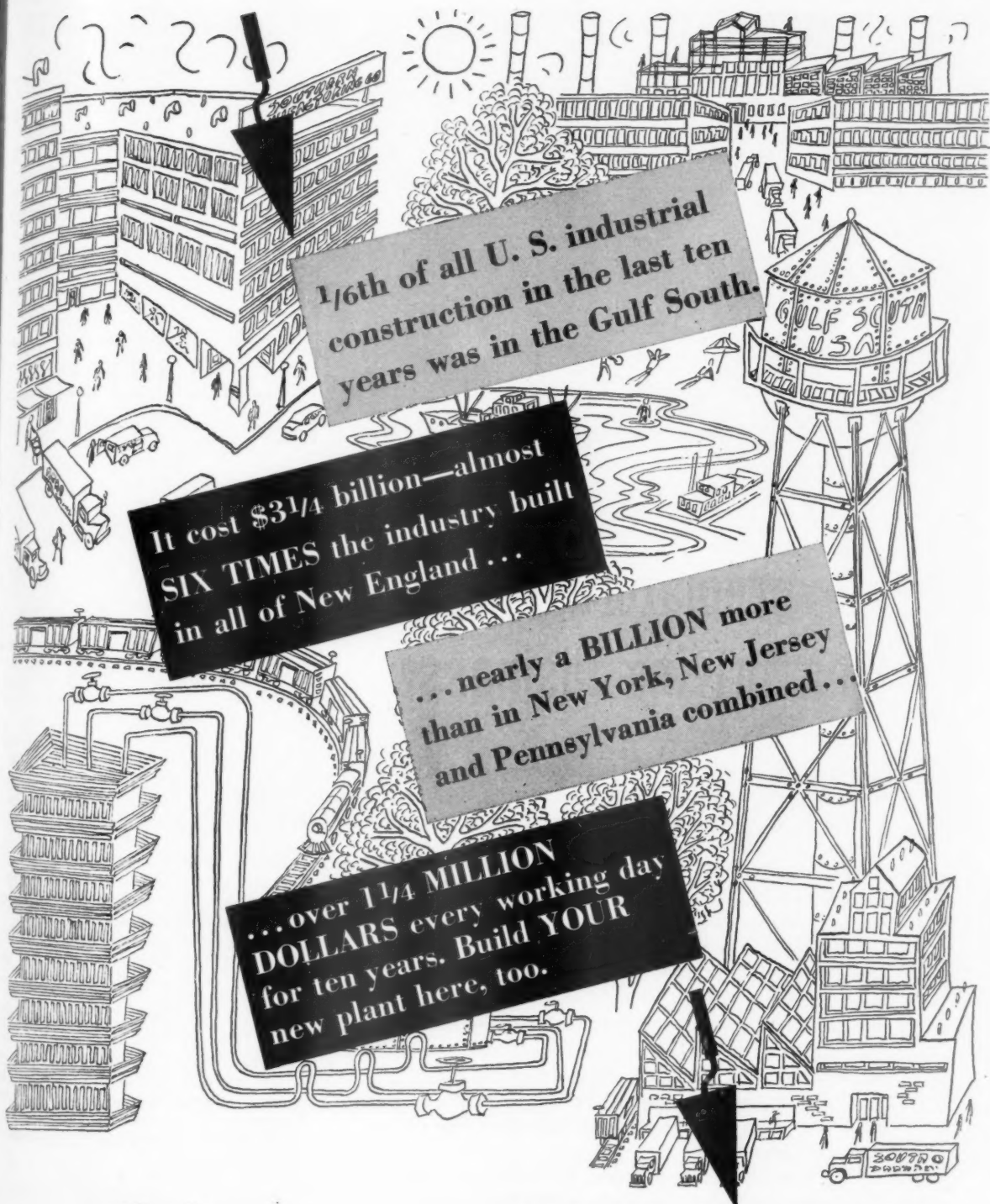
U. S. officials charged with carrying out the liberal trade program are fighting behind the scenes. They argue that Pittsburgh's classification is based on two-months-old statistics, which do not now reflect rising employment in steel. What unemployment exists is largely in coal, which won't be helped much by slightly-increased work in electrical equipment, itself not suffering from acute joblessness.

This much is sure. If the test goes against the British, trading partners abroad will again doubt the Administration's ability to follow through on its promises of a more liberal foreign economic policy. On the other hand, the White House risks tremendous domestic pressure if English Electric gets the order. It's likely the President himself will have to decide—soon.

• "Buy Canadian" got the nod last week on a big contract for generators for the St. Lawrence power project.

The Hydro Electric Power Commission of Ontario awarded a \$13.5-million order to Canadian General Electric and

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1/6th of all U. S. industrial construction in the last ten years was in the Gulf South.

It cost \$3 1/4 billion—almost SIX TIMES the industry built in all of New England...

...nearly a BILLION more than in New York, New Jersey and Pennsylvania combined...

...over 1 1/4 MILLION DOLLARS every working day for ten years. Build YOUR new plant here, too.

Source: Engineering News Record (McGraw-Hill) computed by United Gas Industrial Development Director, P. O. Box 1407, Shreveport, Louisiana.



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Remember, the next fire may be your own. Why gamble, when you can have installed the most effective means of protection known . . . an automatic sprinkler system. No cash outlay is required and a Blaw-Knox Automatic Sprinkler System will pay for itself in a few years through reductions in insurance premiums.

The need may never arise for a Blaw-Knox Automatic Sprinkler System to spring into action, but should fire start, it’s on the job—instantly.

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always on  
the job

Canadian Westinghouse for 16 generators. Each will build eight, for Ontario Hydro’s Barnhart Island station. (General Electric, Schenectady, got a New York Power Authority order to build 10 machines for the U.S. half of the project.)

Ten companies, Canadian, British, European, entered the bidding. And while Ontario Hydro won’t reveal the figures, it’s likely some of the overseas bids were low. The idea, apparently, was to give the business to domestic electrical manufacturers, who say they have suffered damage from imports—U.S. as well as European.

### BUSINESS ABROAD BRIEFS

No quotas on imported oil, says Pres. Eisenhower. The Administration, he declared last week, would deplore such legislative restrictions on trade, and the Cabinet committee will continue its study of fuels policy. Meanwhile, in Houston, Humble Oil & Refining Co. blames imports—among other things—for a \$10-million drop in last year’s net (BW—Feb. 12 ’55, p158).

In Canada: No protection is in sight for the troubled wool cloth industry. The long-awaited report of the Tariff Board assigns wool’s problems to a shrinking market, higher costs—not low tariffs on British imports. . . . The Dominion dollar’s premium over U.S. currency has dipped below 3¢; at 102.62¢ early this week, it was the lowest since July, 1954.

First helicopter service in Latin America is planned by Lloyd Aerea Colombiano. The Colombian airline is buying four Sikorski machines seating eight to 10 passengers for a feeder service in rugged, but populous, mountain regions of the country.

Heavy water for India: The U.S. will sell 10 tons for the new atomic furnace being built at Bombay. The sale is in line with the recommendations by the Joint Congressional Committee on Atomic Energy that Pres. Eisenhower’s Atoms for Peace plan be implemented as soon as possible.

Brazil’s \$75-million loan from the Export-Import Bank, mainly for the import of capital goods, has been approved in principle (BW—Feb. 12 ’55, p152).

Italian machinery for Canada: Eng. F. Fiorntini & Co., Rome, has formed a Canadian subsidiary to build excavators and cranes for the North American market. Some parts will be supplied from Italy, and the firm also expects to bring in some Italian workers.





**Y**ou have never seen such a "dish" as this—a roasting pan full of sensitive electronic components used in the tiny radio sets so important to our Armed Forces. Actually, those parts must function under conditions similar to those in the oven of your kitchen stove.

Temperatures cooked up inside military radios rise almost to an oven-like 400° because the sets must be hermetically sealed to guard against damage from water, humidity and fungus growth.

No component part is harder to design for such high-temperature operations than the tiny capacitors that smooth out ripples in the current . . . prevent hum from drowning out vital sound.

Mallory beat the heat by designing and producing a special Tantalum Capacitor small enough to meet

military demands for sub-miniature components . . . and tough enough to withstand the sizzling operating temperatures.

Your own radio and TV sets most likely contain Mallory capacitors, resistors and controls—precision products widely used by leading set manufacturers because they know Mallory components give long, satisfactory and trouble-free service.

Other Mallory products include timer switches to mastermind the complicated operation of automatic washing machines, dryers and dish washers . . . welding materials that cut costs on automobile production lines . . . contacts in circuit-breakers of all sizes to prevent short-circuit damage.

If you are a manufacturer, Mallory will welcome the opportunity to explain how we may be able to serve you well.

## MALLORY

SERVING INDUSTRY WITH THESE PRODUCTS:

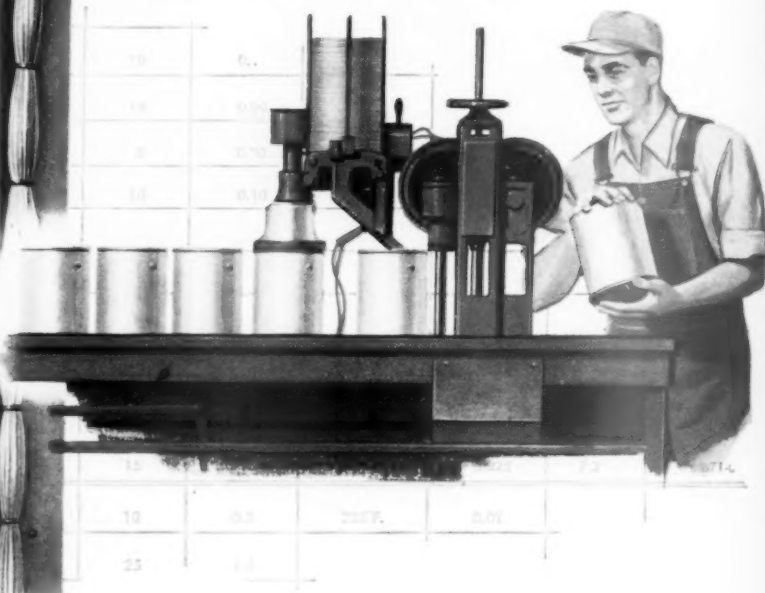
Electromechanical • Resistors, Switches, Television Tuners, Vibrators  
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As a "double-duty" basic material in the production of alkyd paints and enamels, Celanese\* PENTAERYTHRITOL meets both the highest quality standards and the tightest cost schedules. The product of Celanese continuous processing methods, P.E. is typical of the emphasis on development of materials that increase production efficiency and lower costs.



For product improvement... for production efficiency...

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"How can chemical raw materials cut our production costs and contribute to improved products?" Celanese has answered that question many times.

Pioneer in high volume production of petrochemicals, Celanese has set new standards for direct processing methods... easy-to-process chemical forms... production flexibility to keep pace with industrial needs

... and a stable price structure to stimulate long-term planning.

Celanese Technical Service can work with your research and engineering groups in making organic chemicals work better for you. Ask us to show you how.

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Acids	Esters	Polyols
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# INTERNATIONAL OUTLOOK

BUSINESS WEEK

FEB. 19, 1955

A BUSINESS WEEK

SERVICE

Secy. of State John Foster Dulles is making an historic bid to Russia.

In a speech to the Foreign Policy Assn., he called on the Russians this week to put their national interests ahead of international Communism.

If the Russians do that, Dulles said, "there could be a basis for worthwhile negotiation and practical agreements" between the U. S. and Russia. Then, Dulles went on, "there might be reactivated the historic friendship between our countries and our peoples. . . ."

It was last week's shake-up in the Kremlin that led Dulles to make this bid. Though he doesn't pretend to know the full meaning of this event, he clearly feels that there are two trends at work in Russia.

"There must be those who are primarily concerned with the welfare, security, and greatness of the Soviet Union and its people. There are others who would have the Soviet Union and its power serve primarily as a tool of international Communism and as a means of achieving its worldwide ambitions."

In effect, Dulles is saying that the first view is held by many of the Red army leaders (page 130) and by many among the new managerial group that runs Soviet industry. It was to these people that Dulles made his appeal.

Dulles had more than this to say to Moscow. He made it clear that the U. S. is sticking to the firm policy Pres. Eisenhower spelled out to Congress in his message on Formosa.

This policy is a policy of peace—but not peace at the price of being shoved around either by Peking or Moscow.

The belligerent line Foreign Minister Molotov took last week hasn't budged Eisenhower and Dulles one bit.

The fact is that our Formosa policy hasn't changed since the Formosa message—though it has been hard to see the forest for the trees with all the talk about whether or not we are committed to defend Quemoy and Matsu.

Eisenhower's goal still is to draw a line in the Formosa Strait and stop the shooting there.

If the Communists will agree to this, the President is prepared to have the Nationalists withdraw from Quemoy and Matsu. As Dulles said, "The United States has no commitment and no purpose to defend the coastal positions as such. The basic purpose is to assure that Formosa and the Pescadores will not be forcibly taken over by the Chinese Communists."

Our conditions for a withdrawal haven't been decided yet. But you can be sure that Washington will insist on a settlement under which a cease-fire can be enforced.

If the Communists choose, instead, to assault these islands, the U. S. will intervene with whatever force is necessary to maintain the Nationalist position there.

Quemoy will provide a test of what Molotov's belligerent foreign policy line really means.

If the new Soviet regime plans to back up Molotov's tough talk with deeds, then you can expect trouble in the Formosa Strait.

# INTERNATIONAL OUTLOOK (Continued)

**BUSINESS WEEK**  
**FEB. 19, 1955**

But this would mean that Moscow is prepared to have the Chinese Reds risk war in a spot where most of the strategic advantages are on our side: The way Peking sat and watched the evacuation of the Tachens suggests that the Communists aren't prepared for such a risk.

—•—  
Today it's Eisenhower who is conducting a peace offensive—a real one. Already the offensive is making a deep impression both in Europe and Asia. This shows up in several ways:

- London has flatly refused to go along with Molotov's idea of an international conference on Formosa that would exclude the Nationalists.
- India's Nehru hasn't broken ranks with Churchill on this question. Instead he is trying to convince Peking that it must settle for a de facto cease-fire.
- Paris and Bonn have remained calm in the face of Molotov's threats. In both capitals there is confidence that the Western European Union will be ratified soon.

—•—  
It is possible that the show of American strength in the Far East has really strained Soviet-Chinese relations.

You can draw this inference from the way Moscow is pushing Tokyo for immediate discussions on a Japanese-Soviet peace treaty. This week the Russians reversed their previous stand and agreed to let the Japanese pick the time and place for talks.

It may be that Moscow's move is merely intended to help the neutralists in the Feb. 27 Japanese elections. But there is another possibility—that Russia isn't satisfied to let the Chinese Communists run the whole show in the Far East and wants closer ties with Tokyo to help offset Peking's growing ambitions somewhat.

—•—  
At midweek, it looked as if the French might get a left-center government. Premier-designate Pineau, a Socialist, had the full support of his own party, the Catholic MRP, and the Radical Socialists. This may be enough strength to get him Assembly confirmation.

It's the best grouping France could muster for early ratification of the Western European Union agreements. Pineau, a staunch anti-Communist, will fight for the London and Paris accords.

It's not a coalition that promises government stability. Much depends on the Socialists. If a Socialist takes the ministry of finance, he faces the problem of balancing Socialist promises of "social reforms" against inflationary pressures. But the coalition would have this strength: As long as it holds together, only a combined vote of all the conservatives and the Communists could overthrow it.

—•—  
Some real strains are showing up in the British economy.

As production soared last year, Britain's import bill went up. Exports rose, too; but recently the rate of expansion has slackened. What's more, prices of Britain's imports, especially food, have been rising.

So Chancellor Butler is warning industry that it must sell more abroad or have the government's credit policy tightened up. With the present labor shortage in Britain, though, it's hard to see where the extra production can come from.





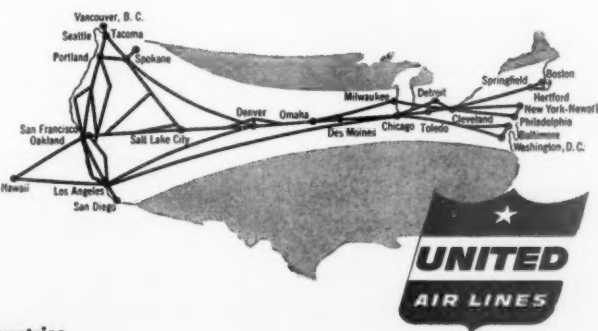
## For split-second timing, Time Magazine picks United Air Lines' dependable Air Freight

You know that United Air Lines Air Freight is fast—but do you know how *dependable* it is? Here's what the traffic manager of TIME Magazine says about United Air Freight: "Shipments on United from Chicago to New York worked out exactly as planned. Our operation began 10 minutes faster than our very best and closest calculations. Those ten minutes are of incalculable value to us."

So whatever *your* shipping problems . . . saving time or storage space, opening new markets, meeting stepped up competition—your local United Air Freight service can offer you valuable help. Offices in principal cities coast-to-coast. Also write for United's new booklet, "Industry's Flying Partner," Cargo Sales, Dept. A-1, 5959 S. Cicero Ave., Chicago 38, Illinois.

**More than 254 United flights daily**

**... Air Cargo on every one**



New world-wide Reserved Space Air Freight now available to 84 countries.

**SURE.**  
*Manzel*  
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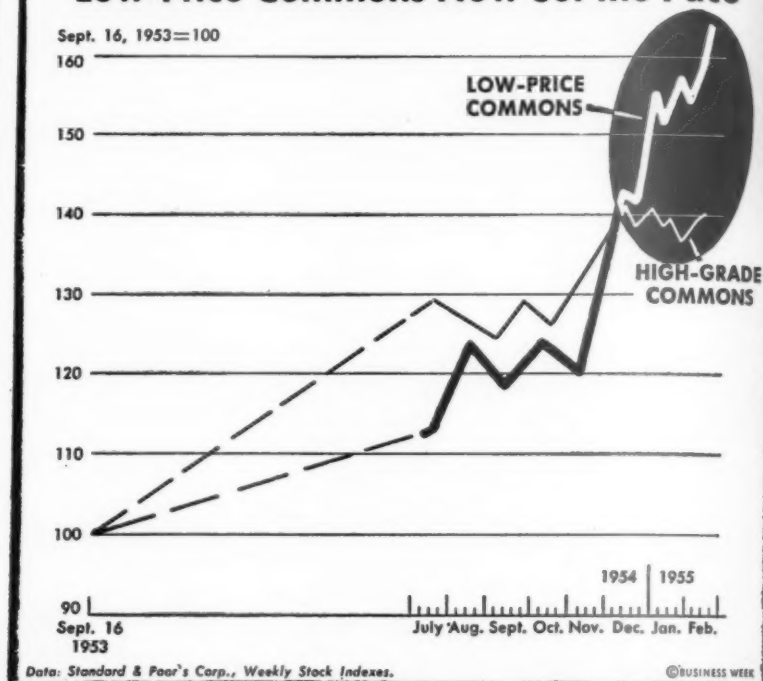
Manzel engineers have a long record of successfully solving really tough lubrication problems with Manzel Force Feed Lubricators. Installation with any number of feeds can be economically made to keep new or old equipment dependably and automatically lubricated under pressure. If you have lubrication requirements that are complicated, ask Manzel for the answer.



**DIVISION OF FRONTIER INDUSTRIES, INC.**  
 333 Babcock St.  
 Buffalo 10, New York

## THE MARKETS

### Low-Price Commons Now Set the Pace



## Razzle-Dazzle in Stocks

Wall Streeters as a group seem to be awaiting the Fulbright hearings on the stock market with little apprehension—and no enthusiasm at all. On one sensitive point—the trend toward heavier speculation—there is a wide split of opinion on how much worrying, if any, the Street should do.

It's obvious, of course, that speculation will come in for close and prolonged scrutiny by the Senatorial probers. The question that divides the Street is: What will be revealed, and how embarrassing will it be?

One group is convinced that there is nothing at all to fear. It argues that the frequent spasms of price irregularity so far this year have effectively discouraged the earlier enthusiasm for speculative buying which looked for a time to be getting out of hand (BW—Jan. 15 '55, p140).

• **Dissent**—This hopeful view is bitterly disputed by many market analysts in the Street, and by other technicians not associated with brokerage houses. These people are convinced that there is plenty of speculation for the investigators to paw over.

To prove their point, they cite fig-

ures like those in the chart above, comparing the performances of two Standard & Poor's weekly indexes: the prices of low-price commons and high-grade commons.

The chart shows that since last fall the low-price index has risen much faster than the blue chip indicator, and that it has intensified its gains in the past few weeks. Indeed, the low-price index has also outstripped the market as a whole.

This week, Moody's Stock Survey stressed this speculative trend. It commented that the "use of stocks merely as chips in a fast poker game, often with borrowed funds, has been increasing, judging from such evidence as rising brokers' loans and fast trading activity."

• **Gyrations**—There was plenty of other supporting evidence of rather wild speculation. You could find it in the sensational price gyrations on the Big Board early this week.

**General Dynamics Corp.**, a popular war baby, did some wild bouncing on Monday and Tuesday. Last week, General Dynamics shares—which will soon be split 2-for-1 by a 100% stock divi-



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## Atlas Corporation

33 Pine Street, New York 5, N. Y.

### Dividend No. 53 on Common Stock

A regular quarterly dividend of 50¢ per share has been declared, payable March 21, 1955 to holders of record at the close of business on February 28, 1955 on the Common Stock of Atlas Corporation.

WALTER A. PETERSON, Treasurer  
February 3, 1955



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dend—closed at \$113.75, or 53% above their low point for January.

This sharp rise was nothing to what was to come. On Monday, fresh rumors of an impending merger rocketed the price to \$121.50 before it sagged very slightly to close at \$119.25, a gain for the day of \$5.50. Tuesday's doings were even crazier. Early in the day, General Dynamics shot up to \$131. Then the company pulled the plug by denying the merger rumors. The shares lost \$12 in no time at all.

Chance Vought Aircraft, another war stock, has ridden a roller-coaster of its own. Here again, rumors of a "big merger" provided the fuel. Last week, the stock closed at \$54.25, which was 81% above its January low. Between Monday and early Wednesday it kept on rising all the way to \$68, a gain of 25% over Friday's close, and 125% above the January low. Wednesday morning, Pres. Frederick O. Detweiler of Chance Vought swung the ax, a

"categorical denial" that there was any truth in the "highly speculative" rumors about his company. In an hour the shares were selling at \$61, off \$7.

These are only two examples out of many of the rumor-inspired "crap shooting" that has been going on in the market. The gyrations have been spread pretty well all over the stock lists, not just among the war babies.

Even Mother Bell's stately blue-chip shares have felt the upward impetus of stock split rumors, though such rumors earlier had been repeatedly and officially denied. On Wednesday, the AT&T directors met, declared the regular dividend, and authorized the issuing of \$650-million new debentures. But the board said nothing at all about a stock split, so the shares fell at once from \$181.25 down to \$178.

All this evidence convinces a lot of market people that speculation is plenty lively enough to give the Fulbright group a nice, lively topic.

## Big Board Dividends Top \$6-Billion

For the eighth straight year, common stock dividends paid by companies listed on the New York Stock Exchange set a new record. In 1954, payments totaled \$6.4-billion, topping 1953 by 8.8%.

About 90% of all common stocks listed showed some cash payment for the year, and 43% of the issues increased their payments. Of the 968 issues paying any cash dividend, 179, or 16%, paid less than in 1953.

The aircraft group—the bull market

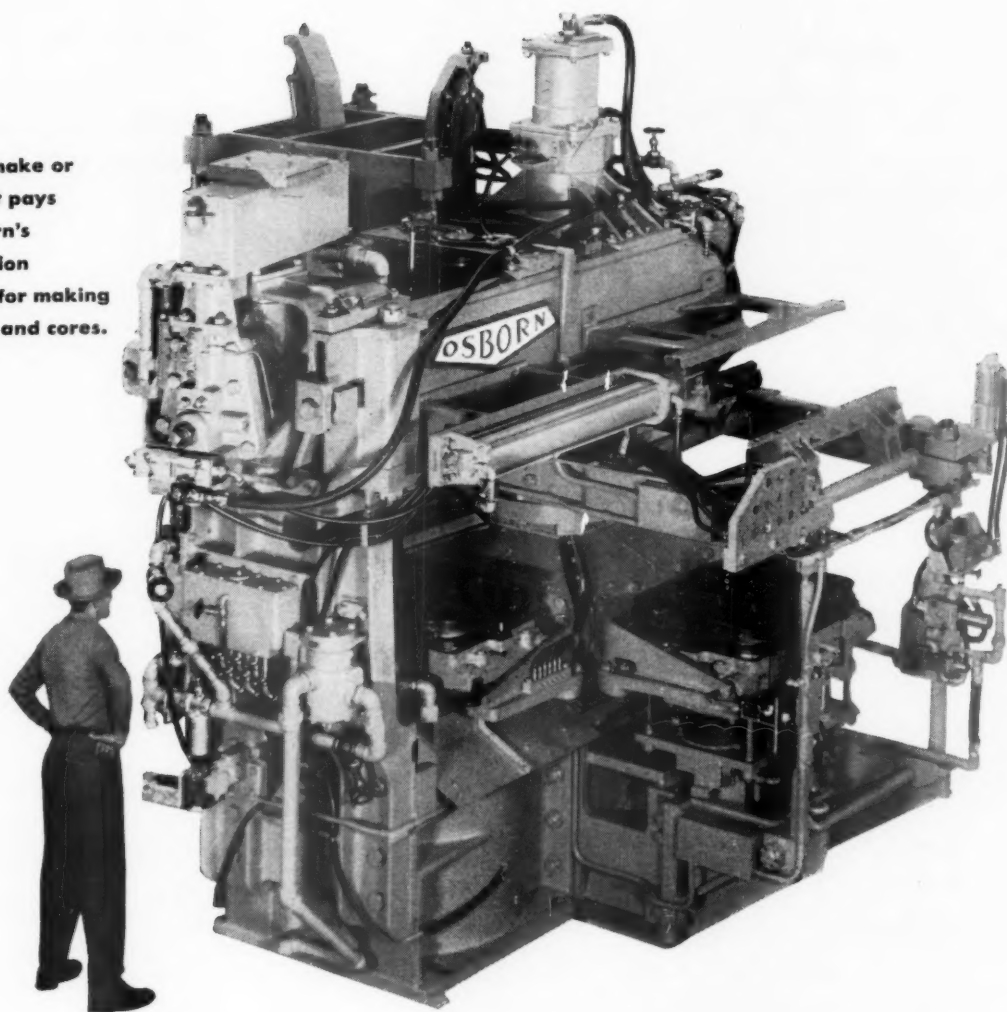
favorite (page 41)—showed the biggest increase in cash payments. The aircrafts were up a sensational 63.3% over 1953, which in turn had upped dividends 17.3% over 1952. The second biggest increase came in the chemicals, 19.3% above 1953.

The biggest losers were farm machinery, where cash payments dipped 15.8%; textiles, down 11.3%; U.S. companies operating abroad, down 9.4%; and the railroad and railroad equipment shares, down 0.4%.

Stock Group	No. of Issues in Group	No. of Dividend Payers	Higher	Same	Less	Estimated Dividends (In millions) 1954	% Change 1954 vs. 1953
Aircraft.....	27	24	18	6	0	\$96.8	+63.3%
Amusement.....	24	21	13	8	1	64.7	+17.1
Automotive.....	67	59	14	28	18	593.4	+ 9.7
Building trade.....	30	29	13	12	5	92.2	+16.1
Chemical.....	85	82	39	39	4	751.2	+19.3
Electrical equipment.....	25	23	11	8	5	213.9	+12.1
Farm machinery.....	7	6	1	1	5	47.9	-15.8
Financial.....	34	32	26	5	1	149.9	+12.3
Food products, beverages.....	70	63	27	23	15	247.2	+ 2.1
Leather, leather products.....	10	8	3	5	0	21.6	+ 5.0
Machinery, metals.....	106	95	51	31	18	234.3	+11.4
Mining.....	40	31	9	13	11	207.5	+ 0.1
Office equipment.....	10	10	5	1	4	37.0	+ 6.9
Paper, publishing.....	38	34	17	14	3	130.4	+18.3
Petroleum, natural gas.....	50	47	18	23	6	1,000.3	+ 1.9
Railroad, railroad equipment.....	82	70	20	39	12	331.3	- 0.4
Real estate.....	10	10	5	2	3	19.3	+11.5
Retail trade.....	70	63	13	37	15	289.9	+15.7
Rubber.....	9	9	3	4	2	59.3	+ 6.1
Shipbuilding, operating.....	10	9	4	3	2	19.1	+ 6.0
Steel, iron.....	38	32	13	11	10	284.9	+ 7.2
Textile.....	44	35	8	14	18	60.3	-11.3
Tobacco.....	15	15	6	6	3	94.3	+14.0
Utilities.....	109	105	61	44	1	1,161.1	+10.7
U. S. cos operating abroad.....	24	19	4	8	7	55.0	- 9.4
Foreign companies.....	18	16	2	10	4	128.5	+ 6.8
Other companies.....	24	21	13	3	6	47.6	+ 6.2
	1,076	968	417	398	179	\$6,438.8	+ 8.8



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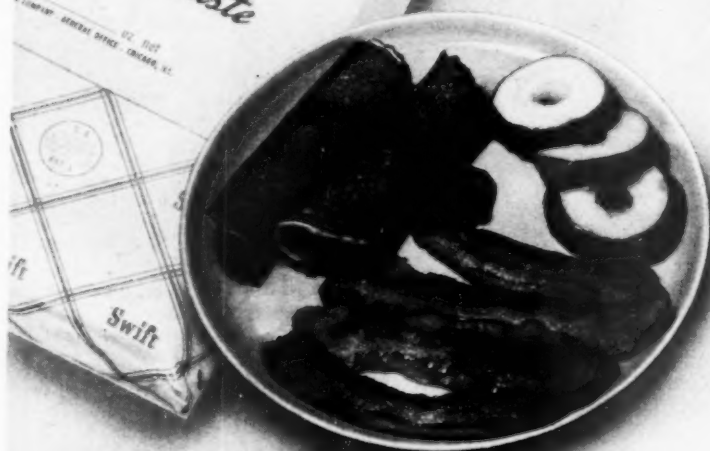
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## Wall St. Talks . . .

. . . about the fallibility of Winchell's stock tips . . . the dubious goals of some uranium companies.

Those Sunday TV stock tips of Walter Winchell's don't always pay off, Wall Streeters warn. Early-bird followers of his tip on Pantepec Oil (BW-Jan.15'55,p142) were 17% in the red early this week. And his "buy Carborundum Co." advice of last Apr. 11 could have been just as costly. Tip-inspired buying sent the stock to \$40.25 in short order, but it has never been so high since, and this week was selling at \$33.75, down 16%. Meanwhile, Standard & Poor's daily industrial stock index has risen 36%.

Many uranium companies on the Colorado plateau "seem to have been more interested in mining the public investor than mining ore." That charge was made by Merritt C. Ruddock, vice-president of Utah's Cal-Uranium Co. Street conservatives wholeheartedly echo his opinion.

**Market letter gleanings:** "The way the industrials have retraced their steps following the January break, plus the confirming vigor of the rails, attests to the strong condition of this market. This does not preclude a correction of some magnitude starting this month or in March." (Thompson & McKinnon.) . . . "In the ensuing months the upward trend of quotations may continue but the money managers may feel that additional action or warnings are necessary. They may have potent weapons or threats in their armory. The new phase of the market certainly requires a larger degree of caution than before." (Robert S. Byfield.)

**Insiders are chuckling** at the Herculean job shaping up for the Fulbright committee in processing the answers to the questionnaires for its stock market study. One example of the heavy going ahead: Merrill Lynch, Pierce, Fenner & Beane is replying with 15 charts and 12 closely spaced typewritten pages, according to managing partner Winthrop H. Smith.

Stock splits were approved or proposed last week for Western Union, Noranda Mines, Ltd., Atlantic Coast Line, Creole Petroleum, the Bank of New York (via a 100% stock dividend), Pure Oil, and Copper Range Co. And there was a swirl of rumors that dozens of others are considering splits.

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# LABOR

## Lines Drawn on Minimum Wages

● Administration study shows its proposal for raising minimum would have only minor effects over-all.

● In all, it says, 1.3-million workers would have wages boosted an average 9¢ an hour under a new 90¢ minimum.

● Most reverberations would be in the South, where one out of five workers would get raises; because of this, Southern congressmen are tightening lines.

Last week, the Eisenhower Administration bared its reasons for seeking a 90¢ federal minimum wage. Its action was designed to bolster Congressional support for the pay raise, but it also provided ammunition for opponents.

The Administration's strategy behind the request for a 15¢ minimum wage hike came to light as Congress prepared to tangle with the President's proposal. At the outset, it appeared there would be enough bipartisan votes to push the measure through—and possibly to boost the final figure to \$1. But not without an argument.

The source of the opposition was strikingly apparent in a Bureau of Labor Statistics survey of 4,000 manufacturers showing the effects of the 90¢ figure on factory payrolls. While the overall disruptions would be minor, the biggest reverberations would be felt in the South.

Conservative Southern congressmen, backed by some manufacturers in their areas, have already signaled their displeasure with the proposal. Now they're armed with the Administration's own figures showing just how hard their home states would be hit.

• **Figures**—Paradoxically, it's this same BLS survey, released through Labor Secy. James P. Mitchell, that sparked the White House recommendation. Here is what BLS found:

• The increase from the present 75¢ figure would mean pay raises for nearly 1-million factory employees (about 600,000 in the South) and 300,000 others in nonmanufacturing. The average increase would be about 9¢ an hour, or \$180 a year.

• The industries mainly affected would be lumber products, apparel, tobacco, textiles, leather goods, and food products. Others, outside manufacturing, that would feel the higher rate are principally banking and insurance, wholesale trade, and communications.

• The number of workers affected, according to geographical divisions,

would be only 1.1% in the Far West; 2.3% in the Middle West; 4.1% in the Northeast, and a high 20.2% in the South.

Thus, it wouldn't take much to persuade congressmen from the East, West, and North to go along with the White House proposal. But for their Southern associates, the matter involves one-fifth of the payrolls of their manufacturing constituents.

The Southern wage differential has long spurred labor union support for a higher minimum wage—partly with an eye to minimizing the difference, and partly to try to prevent industries from moving South to take advantage of the differentials.

• **Breakdown**—The Administration's decision to back the 90¢ figure was based on two points: First, it now believes the economy is strong enough to stand the effects; second, the raise is considered necessary to keep lower-paid workers abreast of the rise in living costs.

There are moves in Congress to raise the 90¢ figure suggested by the President to \$1, and at least one bill calls for \$1.25 an hour—the figure supported by AFL and CIO. BLS took both these figures into account in its survey, which, naturally, showed that the effects of the labor-urged \$1.25 minimum would be much more drastic.

The survey reveals, for instance, that among factory production employees (not including office workers) some 817,000 earn under 90¢; 1.2-million under \$1, and 2.8-million are paid less than \$1.25 an hour. Taking the \$1 figure, which may be the end result of Congressional bargaining, the breakdown shows about twice the number of workers would get a raise than under the 90¢ figure in the three non-South areas, while the total would climb to 28.2% in the South.

• **Geographical Factor**—BLS explains that part of the wage differences reflect the variations of skills required in fac-

tory jobs as well as the differences in wage levels in the same industry. But the geographical wage differentials provide the key to the trouble over a federally invoked minimum wage figure for interstate commerce.

As an example, if the labor-supported \$1.25 figure went on the books, it would mean an automatic raise for at least half of the South's factory workers—since 50% of them are now getting less than \$1.25 an hour. In part, this is due to the concentration of low-paying industries below the Mason and Dixon Line, and to the heavy employment of women—normally lower-paid than men—ranging from 8.1% in the Far West to 42.1% in the South.

• **History Repeats**—Just before the Administration's formal request for the 90¢ figure, BLS turned out another survey showing what effect the 75¢ minimum had on the economy when it went on the books in 1950. The previous minimum was 40¢.

This survey showed, not surprisingly, just about the same results as last week's report. The 75¢ figure brought raises to 1.3-million workers—matching the number now paid under 90¢—with just about the same industries affected.

BLS said that apart from the immediate pay adjustments to a 75¢ minimum, the 75¢ rate "had only minor effects on employment, plant shut-downs, prices, technological change, hiring policies, and overtime."

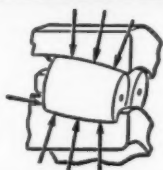
Opponents argue that the results of a higher minimum would be felt all along the wage line, boosting wages in higher brackets to maintain the normal differential with lower-paid workers.

• **Holding the Line**—In recommending the 90¢ minimum, Pres. Eisenhower agreed that "some workers now earning more than 90¢ an hour would probably receive wage increases to preserve customary differentials." The BLS preliminary report on possible effects of a 90¢ minimum does not go into the question of an upward push on wages above the minimum. However, the earlier report on the increase from 40¢ to 75¢ discounted the effects on wages above the minimum.

The Administration is convinced that a 15¢ raise in the minimum would not damage the national industrial wage structure. Economic expansion stimulated by an increase would help low-wage industries "absorb a part or all of the increase," according to the President. Supporting the Administration's position, BLS points out that average wages are now far above the proposed



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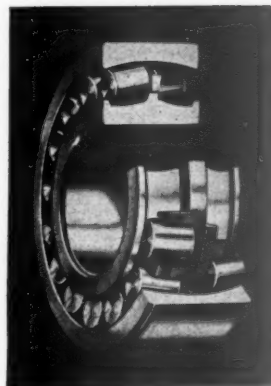
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90¢ minimum. Production workers in manufacturing average \$1.68 for all regions. In the South, the average is the lowest, \$1.36 an hour; the highest is in the Far West, \$1.94 an hour.

• **Next Round**—While the preliminary fight in Congress will center on the minimum wage figure, there'll be much more trouble when the White House sends Congress its proposals for extending coverage to "substantial numbers" of the millions of retail trade and service employees who are now exempt. These are traditionally low-paid and would be more sharply affected by the 90¢ figure.

Retail and service groups—such as laundries, groceries, hardware, drygoods stores—have already organized opposition to extended coverage through employer associations. They'll have plenty of support in Congress, and while a higher minimum will probably come this term, extending coverage of the law is less likely.



JUDGE BOYD LEEDOM of the South Dakota Supreme Court is in line for a key job. He's ...

## Nominated for NLRB

President Eisenhower this week nominated Judge Boyd Leedom of the South Dakota Supreme Court for the important fifth seat on the National Labor Relations Board—now divided evenly between Republican appointees and holdovers from previous Democratic Administrations.

Judge Leedom, 49, has the backing of Labor Secy. James P. Mitchell and South Dakota's two Republican senators. His experience in industrial relations has been primarily in the railroad industry, where he has served as arbitrator in about 490 cases brought under the Railway Labor Act.

If confirmed by the Senate, Judge Leedom will succeed Albert C. Beeson, whose NLRB term expired Dec. 16.

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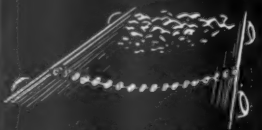
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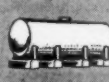
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JOB PROTECTION: Bias charge against a Chicago company is latest of many moves . . .

## Backing the Negro Worker

Armour & Co., of Chicago, was accused last week of violating the government's new regulations against racial bias on government contract work. Armour is the second of the "Big Four" meat packers so accused in a United Packinghouse Workers (CIO) campaign to force the employment of Negroes in company offices.

Under Pres. Eisenhower's Executive Order 10557, contractors who accept government contracts must agree "not to discriminate against any employee or applicant for employment because of race, creed, color, or national origin." The bar against bias applies not only to hiring but also to all conditions of employment, including rates of pay, opportunity for promotion or job training, and layoffs and termination.

• **First Report**—The President's order was issued in August, 1953. It established an interdepartmental President's Committee on Government Contracts, with Vice-Pres. Nixon as chairman. Since it was set up 18 months ago, the committee has received 104 complaints of discrimination.

Contractors agreed to wipe out bias in 13 of the first 37 cases investigated. In the others, the committee's inspectors are continuing periodic spot checks on job practices and are working out, informally, agreements resolving any problems on compliance.

Another 42 cases are still being investigated. One, involving the Atomic

Energy Commission's Savannah River project, is based on complaints that Negroes haven't been getting fair treatment. Others involve Baltimore Telephone Co., St. Louis Telephone Co., the Chesapeake & Ohio Ry. in Washington, and Swift & Co.

The remaining 25 of the 104 cases filed so far were dismissed either because the committee did not have jurisdiction over them, or because there were insufficient grounds for processing a case.

The committee's emphasis is on getting companies to comply with the federal order, but its work so far has been largely educational. It has sent out 55,000 car cards to transit systems across the country, publicizing the new anti-bias rules, and has just distributed 250,000 brochures on how complaints should be filed.

• **Armour Case**—In the Armour case in Chicago, the Packinghouse Workers—which has a long record of opposition to racial bias—filed the discrimination charge on behalf of 10 Negroes. According to the union, they were turned down for stenographic jobs at various times in a three-month period; UPW charged that three white applicants were offered jobs right away in the same period.

Armour, a supplier of meat products for the armed forces, denied any bias. One of the largest employers of Negroes in Chicago, it said that it has



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"always obeyed the law," and that it had heard no complaint about bias in offices or anywhere until UPW filed its charge under the executive order.

• **Unions Called In**—Most international unions, like UPW, have anti-discrimination policies. But hundreds of locals—particularly in the South—still deny Negroes full job opportunities (BW—Dec. 18'54,p76). Contractors have complained that they cannot comply with the federal order because of union rules and the likelihood of work stoppages.

Seeking an answer to this problem, the President's contracts committee has called a meeting of 43 union leaders

from AFL, CIO, the United Mine Workers, and the railroad brotherhoods. The committee will ask them to bring more pressure to bear on biased locals, to make the federal order more effective.

One of the problems that observers expect to be considered at the union leaders' meeting, in Washington Mar. 15, involves the Southwestern oil industry. The National Assn. for the Advancement of Colored People has complained that "separate lines of progression" for white and Negro workers hold back the latter in many refineries; NAACP blames both companies and unions.

## Promotions: A New Slant?

An arbitrator's challenge to management's generally dim view of seniority promotions stirs some grumbling and worry. It's all based on a Harvard research study.

An innocent-looking paper—on the question of seniority as a basis for promotion—was delivered early this month at a meeting of the National Academy of Arbitrators in Boston. It precipitated immediate rumbling in industrial relations circles.

There are two reasons for the worry on the part of management:

• The paper itself, presented by James J. Healy, associate professor at the Harvard Graduate School of Business, disputed the common management conviction that union insistence on promotion according to seniority is one of the evils of our time, and one of the causes of inefficiency in production.

• The setting—at a meeting of arbitrators—brought into play the lingering feelings of distrust still felt by some management men toward arbitrators: the fear that arbitrators will arrogate to themselves too much power.

• **Attitudes**—The National Academy is a self-organized association made up primarily of professional arbitrators (BW—Feb.3'51,p91). Its annual sessions, devoted to reports and discussion, usually bring together many of the top men who sit in final judgment on disputes arising between unions and employers on the interpretation and application of contract terms.

The largest and most important section of management has now accepted arbitration—and arbitrators—as the best available device for maintaining industrial peace in the face of differences of opinion over a contract's meaning. But a residue of distrust remains toward these "outside fellows," as some businessmen think of arbitrators—a fear that at times they have ideas of their own on how the parties that have

to live with each other should conduct themselves.

Wider use of arbitration has overcome much of this suspicion, and many arbitrators have made valuable contributions to employer-employee relations. Nevertheless, a feeling of uneasiness remains about what the arbitrators will do.

When this is expressed, it is usually put in terms of fear that these men, given final authority in cases on which they sit, will take over too great power. The management men who distrust arbitrators are afraid that they will impose on the parties their own ideas or—and this is perhaps the most frequent complaint—that they will be unfamiliar with and unsympathetic to management's problems.

### I. Who Is Qualified?

It is out of this attitude that management's worry developed over the Healy paper, which called into question some management opinions on seniority.

The common management view that promotion by seniority is all to the bad arises from the belief that it:

• "Deprives managers of the opportunity to exercise some of their most important skills," as Harvard economist Sumner Slichter puts it.

• Destroys employee initiative by making it difficult, if not impossible, for a good young man to move ahead rapidly on the basis of merit or performance.

• Reduces a company's efficiency and, as the practice becomes general, puts a brake on the U. S. economy.

These charges are based on an underlying assumption: that seniority require-

ments (though they usually include a proviso that the worker must be qualified for the higher-rated job) actually result in more promotions of poorly qualified employees than managers would otherwise make.

• **Challenge**—Healy's findings challenged the whole assumption. Healy, an experienced labor arbitrator, told the NAA that there's no scientific evidence for the management view.

He reported that the research project which he has conducted tends to establish the opposite conclusion—that promotions based on seniority, at union insistence and over employers' objections, usually result in giving the job to the right man—even in the opinion of the employers themselves.

Healy tacked on a qualification, though. He emphasized that he did not yet have enough evidence to establish this conclusion firmly.

• **Data**—Healy's group at Harvard looked into 58 arbitration awards in which the arbitrator had set aside management's decision to promote a junior over a senior employee on the basis of superior ability. The awards had all been made at least three years before the study. Each company was asked for a work history of the senior employee who got the promotion, and for an objective statement of the ability he showed in the higher position.

Of the 46 responses received, the reports listed 29 senior employees who had proved themselves able on the new job either immediately or within a very short period. And 16 of the 29 had advanced later to still higher-rated jobs. In only 10 of the 46 cases did the company assert that the arbitrator's award had been unsound. In the seven remaining cases, the company could make no judgment because the promoted employee had either quit voluntarily or been demoted in lieu of lay-off shortly after the award.

• **Results**—Thus, in three-fourths of the cases on which management could express an opinion (29 out of 39), management found that promotion by seniority worked out well, despite its own objections.

Even more significant, said Healy, was the frank statement in 22 cases that supervisors doubted "whether the junior employee originally favored by management would have done any better on the job."

## II. Does Experience Count?

The Harvard research study suggests that (1) there is in fact a good correlation between length of service and ability, and (2) the preference by management for a junior employee because of supposedly superior ability may often be based on other factors.

Obviously these conclusions have not

yet been proved. But if for the word "seniority" you substitute "experience," you'd probably find most U.S. employers agreeing that experience and ability usually go hand in hand. Proof for this may be found in the want ads employers write. And it's hardly a new discovery that promotion may sometimes be influenced more by the candidate's sycophancy or the superior's favoritism than by ability—which, in any case, is frequently difficult to evaluate fairly.

Employers themselves, without any union pressure, often make seniority a key factor in promotion. Healy reported the case of three metal-trades firms of about the same size. In the two firms that were unionized, 81% and 86% of the persons promoted were the senior bidders for the job. In the third firm, which had no union, the figure was 83%.

• **Questions**—While the Harvard study isn't conclusive, it does raise serious questions, which can only be answered by additional research on the relation of seniority to ability.

The arbitrators at the Boston meeting considered Healy's paper the most interesting and important they heard. So do management men who are just now beginning to learn about it. But the management men raise their own set of questions, too. None of them has yet openly expressed any quarrel with Healy's ideas. But some are grumbling about what they take as evidence that arbitrators are seeking to justify themselves as infallible.

## AFL Aluminum Union Joins Drive for GAW

The Aluminum Workers International Union (AFL), which claims 50,000 members in 30 plants, last week joined labor's drive for a guaranteed wage in 1955. Its executive committee, headed by Eddie R. Stahl, president, voted unanimously to make GAW a prime objective in bargaining with major employers this midyear.

Meeting in St. Louis, the AWIU executive committee listed these other negotiating goals for 1955:

- A 35-hour work week, to spread employment over more workers in the industry.

- General wage increases as part of a "package" that would include higher severance pay, an improved pension program, and increased benefits under health and accident insurance plans.

The executive committee's resolution will serve as a guide for negotiators, and is expected to be ratified at AWIU's next national convention in New Orleans May 8.

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# **Pangborn**

## **CONTROLS DUST**

## **LABOR BRIEFS**



Millard Cass (picture), a career civil service employee of the Dept. of Labor, this week was named Deputy Under Secretary of Labor, a new job created by Secy. of Labor James P. Mitchell. Cass will direct and coordinate programs and operations of the department, to assure "maximum efficiency and economy." Cass, 39, a Virginian and an attorney, was on the NLRB staff from 1941 to 1946, and has been a Dept. of Labor aide since 1946.

Labor-backed bills to repeal "right to work" laws (barring compulsory union membership through the union shop) were voted down last week in Tennessee's Senate, 16 to 14, and in South Carolina's House, 85 to 28.

"Inadequate" is how labor describes the Administration's proposal for a 90¢ minimum wage (page 168). Particularly in New England textile and garment industries, unions say, a minimum-wage boost from 75¢ to 90¢ would not "stop the migration of industry to the South, nor . . . increase the purchasing power of the underpaid workers sufficiently to encourage true prosperity and full employment."

A settlement worked out last week by Studebaker-Packard Corp. and Local 5 of the United Auto Workers (CIO) ended a dispute over production standards. The local canceled a strike authorization voted last month (BW-Jan. 29/55,p126).

Guaranteed pay for 40 hours, unless a worker is laid off in advance for the full week, is provided in a new contract between Radio Mfg. Co., Fenton, Mich., and UAW. The company, a GM subcontractor, employs 40 persons.



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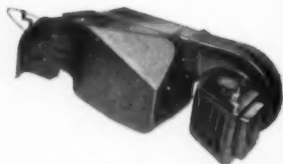


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# PERSONAL BUSINESS

BUSINESS WEEK  
FEB. 19, 1955



Don't underrate your responsibilities if you are a member of a committee in charge of a community building project. With few exceptions, the board you are on will be composed of amateurs at architecture and construction. Nevertheless, your amateur decision is the final one.

## How can an amateur decision bring professional results?

There's only one answer: **The committee must draw on the services of experts** in all fields pertinent to the project. Independent research won't get any layman far; even study of technical journals will help only to the extent of giving information on new trends.

A good starting point is committees in neighboring communities that have faced similar problems. The building programs of these and other cities can provide invaluable clues on how to find specialists.

But the kind and number of experts you'll need will depend on your peculiar problems. Basically, they will include competent specialists in financial and political matters, a lawyer to go over contracts and give general advice, and an architect. (In the case of a new school, you may want to call in a consulting psychiatrist. His knowledge can pinpoint the effect of certain surroundings on children.)

The committee's most important single choice is an architect. And the most important attribute to look for is his good judgment.

Best guide to his judgment is an examination of his past work—but only from the point of view of your particular plans and problems. In other words, don't make a quick choice simply because the man has a solid reputation or is highly specialized.

An architect's practical building experience is important, of course. But it should not be your sole criterion. The character, or "feel," of the architect's work—even if he's never done a building like yours—should weight your decision most heavily.

There's little chance of your getting a downright incompetent; the American Institute of Architects has strict professional standards to protect you. But even the most distinguished architect may lack the attitude you feel your building plans require. Keep this in mind when deciding finally.

(Incidentally, don't be scared off by a "name" architect on the theory that he will cost you more than an unknown. Architects work on a straight percentage basis; the best will be no more expensive than the worst. *Wrong*)

The main thing to keep in mind is that getting a public building up and operating takes more than the ability to draft up an impressive-looking plan. Two New York architects who are old hands at public buildings—Allmon Fordyce and William Hamby—sum up the main things to look for in an architect:

- A sound head for business as well as for design.
  - A solid knowledge of engineering.
  - An organization and contacts that are broad enough to handle the job.
- For example: Your project may need seven or eight engineering specialists to cover structural and mechanical requirements. You'll have to depend on your architect to hire them.

Fordyce and Hamby also have a warning for building committees:

# PERSONAL BUSINESS (Continued)

**BUSINESS WEEK**

**FEB. 19, 1955**

**Don't insist on a conventional, tried-and-true building design.**

In most cases, older designs don't meet modern requirements or usages. And it can mean missing out on valuable innovations.

On the other hand, depart from the standard only with great care. Rely on your architect's ability and integrity.

**Remember, though, that your architect can't do everything for you. Only your committee can accurately assess your community's needs. To get full value, the building must satisfy the needs of those who will use it.**

**Finally, don't let a "rugged individualist" take over the committee. A community building project demands the nearest thing you can get to community action. There is no room for the prejudices or favorites of one man.**

—•—

**Civil War history is currently enjoying a boom in popular interest. If you have been caught up in the enthusiasm of studying this period as a hobby—or even if you have just a normal curiosity—consider a visit to Gettysburg, Pa. It's particularly valuable for the novice.**

Historians often regard the great battle that took place here on July 1, 2, and 3, 1863, as the turning point of the war. It was here that one of the most famous episodes of military history—Pickett's charge—came within an ace of succeeding, and winning the battle.

A monument marks the spot where, a few months after the battle, Lincoln delivered the Gettysburg Address. In the national cemetery he dedicated there, 3,747 Union soldiers lie buried.

Both the terrain and the relatively small area (about 25,000 acres) make it easy to visualize the battle itself. Many monuments and signs give details in various spots; maps and booklets give further information.

It's wise for most first-timers to hire a licensed guide to take them around. They should also see the cyclorama painting and the electrical map of the battle.

Gettysburg is convenient to most of the Northeast—it's about 35 mi. from Harrisburg, less than an hour's drive south of the Pennsylvania Turnpike.

—•—

**Don't expect to see the new release, Cinerama Holiday, on the screen of your local theater; it's a different breed of cat. Only 14 American cities have Cinerama theaters, since renovation and equipment cost about \$150,000.**

Tickets to Cinerama Holiday run from around \$1.80 to \$2.80. Make plans ahead of time to see it; tickets are sold out well in advance.

—•—

**Home craftsmen should look into the Float-Lock Mity 7 vise, introduced by American Machine & Foundry Co. It can be used as a drill-press or band-saw vise, or anchored to the bench, when needed. It can be swiveled, used on its side or end, or angled from the vertical to hold work for any job, opens to seven inches. It sells for around \$10.**

—•—

**Note on a change in the tax law: You no longer need to report by Feb. 28 (on Form 1099) the wages you paid your domestic servants. The requirement to file is now limited generally to payments made in your trade or business.**

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The earth  
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To ach  
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## Timing Belts

Planetarium constructed by Spitz Laboratories, Inc., Elkton, Md., for the city of Montevideo, Uruguay, showing the heavens as seen looking southward from Montevideo.

The earth spins on its axis more than 10,756.265 times in the interval it takes Saturn to make one trip around the sun. Today there is a new planetarium so accurate that it shows the relative speeds of the sun, moon and the visible planets of the solar system moving in the same proportionate speed as they do in the real sky.

To achieve such amazing precision, Spitz Laboratories, Inc., makers of most of today's planetariums, uses United States Rubber Company's PowerGrip Timing Belts. On each unit, 13 of these belts drive the mechanisms for 8 solar system bodies with pin-point, split-second accuracy. These belts have teeth which fit into the pulleys, permitting a *completely controlled* quiet movement with absolutely no slippage or creeping. At the lowest speeds of these belts it is almost impossible for the human eye to detect any movement. Spitz Laboratories says it would be impossible to build so efficient a time and space machine without the U. S. PowerGrip Timing Belt.

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Close-up section of Spitz Planetarium showing some of the U. S. PowerGrip Timing Belts.



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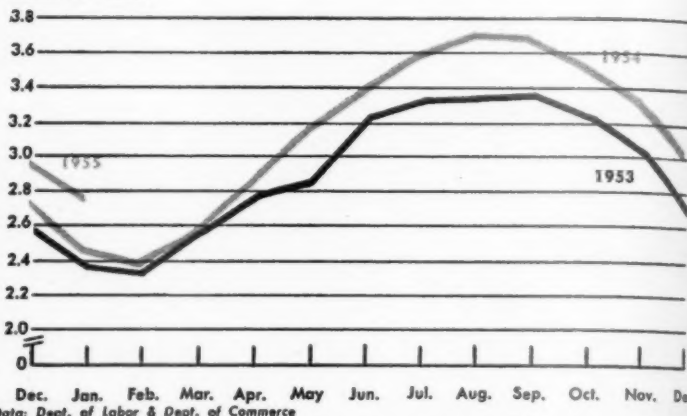
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## CHARTS OF THE WEEK

### New Construction

Billions of Dollars



Data: Dept. of Labor & Dept. of Commerce

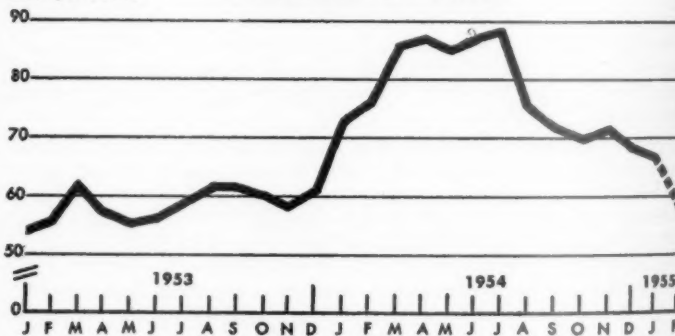
## Running Ahead of the Record

With one record year just finished, construction activity has started 1955 with a bang. The value of new construction in January was 13% more than in

the year-ago month. Spending on new construction for the entire 12 months of 1954 topped the previous year by more than 5%.

### Coffee Prices

Cents per Pound\*



Data: U. S. Dept. of Labor

\*Santos No. 4, New York

## The Toboggan Slides Faster

Last year wholesale coffee prices had a merry ride, from a low of around 60¢ a lb. clear up to 88¢, and then part way back down again. Last week, with a nudge from the Brazilian government, the price plopped all the way down to 59¢ a lb.

The original rise had been widely ascribed to crop shortages brought on by frosts. Then the downward move arose out of competition between Brazilian coffee (chart) and its rivals for the American market. The Brazilian government gave its push last week when it raised

## How and why to pick a sky



From top to bottom

Luminous ceiling of Corning Alba-Lite for the City Investing Company, N. Y. C. Comfortable, even illumination—adequate for all areas.

Luxury lighting brightens this executive office. Corning Fota-Lite, both in the perimeter and over-the-desk panels provide proper balance, add a decorative note.



Helping to set a buying mood are these Twinlite panels of water-white crystal glass in the Lane Bryant Store, Brooklyn, N. Y.

Sky below the street uses both flat and bent Alba-Lite panels. This installation is in Chicago's Grant Park Underground Garage.



If selecting a sky seems unprofitable or impractical, the pictures on this page may suggest otherwise.

An indoor sky is something you can select. And, you can do it with the same basic purposes and criteria used for other office, store, or plant equipment. Here's why.

Indoor skies (commonly called ceilings) can be put to work to provide the right kind of light—light that sets a mood, creates an atmosphere; glareless, shadowless light that provides the correct level for an infinite variety of tasks.

And what keynotes most modern lighting plans? Glass. One of man's oldest and ablest allies, glass in lighting serves three basic functions: 1) Control, 2) Protection, 3) Decoration.

Each function requires the skills of specialists—engineers, product designers, architects, artists and craftsmen. And each individual piece of glass for lighting represents a blending of art and science—a way to pick a sky that suits you and your purposes.

Corning lighting products are the stuff architects, engineers, and lighting contractors build indoor skies of. These are the specialists who stand ready to help you. If you'd like a look at what lies behind their recommendations, send for a copy of the booklet called: "Architects and Engineers Handbook of Lighting Glassware."

Or, if you'd like to start at a different level, and see how many and varied are the tasks performed by Corning glass designed especially for thousands of practical and pleasurable uses, besides lighting, send for "Glass and You." It's a well illustrated little volume that shows in words and pictures how glass by Corning serves your interests in progress, profit, and better living. The coupon will bring you one or both books.



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**G-E 25-ton switcher gives more than 20% gross return on investment through savings in fuel and lubrication alone**

By converting from older motive power to an efficient G-E diesel-electric, you can realize the savings that many industries all over the country are getting. Cadillac-Soo Lumber Company, Sault Ste. Marie, Mich., recently reported that its 25-ton switcher is showing a gross investment return of more than 20 percent from cost reductions in fuel and lubricating oil alone. This figure does not include maintenance savings, which in many cases more than doubles the gross return.

"I don't know why we didn't make this switch earlier," says J. S. Landon, general manager of Cadillac-Soo. "It is now costing us only about eighty cents a day for fuel, as compared with about \$17.50 for coal for the old steam locomotive. In addition, we do not have to change the oil in the diesel-electric more than once a month, which is another saving. You can see from this that we are delighted with the new machine."

### SAFE, CLEAN, AND QUIET

Another advantage of Cadillac-Soo's new switcher is that it eliminates locomotive fire hazard. Since it does not give off smoke, sparks, or harmful gases, a diesel-electric is ideal for use around a lumber yard—and any area where reduction of fire hazard, cleanliness, and quiet operation are important considerations.

In any industrial haulage job you get the most economical and efficient service from an industrial type locomotive—a locomotive designed specifically for industrial service. General Electric is the world's largest manufacturer of this type of motive power. One of the seven standard diesel-electric sizes, ranging from 25 to 95 tons, may be exactly suited to your requirements. For an economic and engineering survey contact your G-E Apparatus Sales Engineer. Or write for the free booklet, *Switch to Diesel-Electrics and Save*, to: General Electric Co., Section 120-73, Schenectady 5, N. Y.

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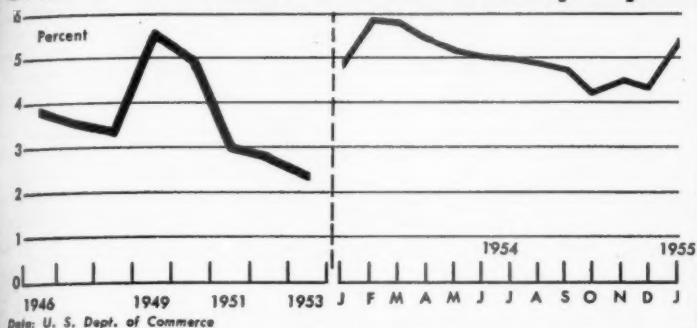


the bonus for U. S. dollars earned by coffee sales. In effect, Brazilian coffee exporters can cut their prices, and their government will make up the difference. The Brazilian government made a similar move last August, when demand for

coffee was slowing (BW-Oct. 9 '54, p186).

The going price for Santos No. 4s, New York, is close to the levels of early 1953. Chain stores are reported cutting retail prices on their private brands.

## Percent of Labor Force Unemployed

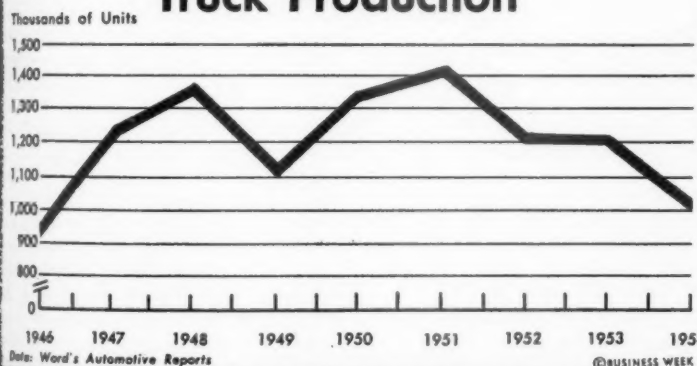


## Joblessness Stays High

Unemployment passed 3.3-million last month, a 500,000 rise from December. This meant 5.3% of the labor force was unemployed in January, a percentage that is well below the postwar peak of

5.8% in February and March a year ago; the postwar high for an entire year was 5.5% in 1949. A seasonal rise is usual early each year. January's loss of jobs was largely in retail trade and construction.

## Truck Production



## Bad Start in the New Year

Truck production in 1954 was 1,023,057 units, off 15% from 1953 and still further below the postwar peak of 1,412,149 reached in 1951. The 1941 figure was 1,092,868.

Not one manufacturer increased output last year; the independents lost most heavily. Reduced military demand was the biggest factor; commercial demand was also slowed down, — fell off as a

result of last year's business recession.

Producers are off to a poor start this year, according to Ward's Automotive Reports. January production was 5.8% below the year-ago figure, and February volume is due to be slashed about 38% due to changeovers. Even with a strong comeback in March, Ward's figures that first-quarter 1955 will run about 12% behind last year.



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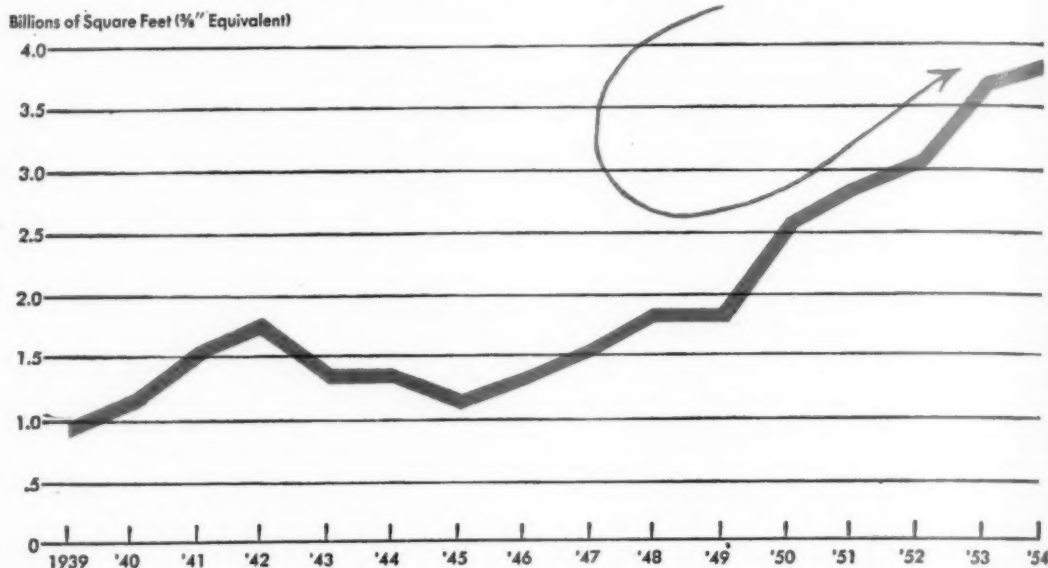
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# COMMODITIES

## Douglas Fir Plywood Production



Data: Douglas Fir Plywood Assn.

© BUSINESS WEEK

## The Shakeout That Never Came

The plywood industry still can't quite believe its luck. It took a major strike and a broad shift in the whole economy to do it, but plywood has escaped the shakeout that it has been predicting for itself for years.

The whole industry has been growing at a furious pace for a long time; just in the last five years it more than doubled (chart). This mushroom growth worried old-timers in the industry. They felt sure that the first sag in the market would shake out the weaker sisters in the trade.

• **Slack Time**—Last spring, the hour seemed to have struck. Order files were light and prices sagged—just at the season when they should have been strongest. But, even as the worriers were dusting off their "I-told-you-so's," a lumber strike stopped production enough to strengthen the market.

The strike would have provided only a temporary reprieve had business in general continued in the doldrums. But luck took a hand again. By the time the strike was settled, over-all business was ready to move up again, and building was off to a fast start in the boom that is still continuing.

Plywood has been riding that boom ever since. Order backlogs are at a record high, plants are working overtime. For the first five weeks of this year, production ran 24% ahead of the 1954 period. Even so, there is serious talk of shortages during the heavy spring buying.

• **Who Gets It**—It's difficult to find hard and fast statistics on plywood users, because most of it is sold through individual lumber dealers. The best industry guessing runs like this:

**New construction** takes about half. Of this, housing already gets the biggest share, and the proportion is rising. In nonresidential building, by far the most important use is in forms for pouring concrete.

**Industrial uses** such as furniture, luggage, and boatbuilding take perhaps 20% of output.

**Remodeling and repair** of homes, of commercial and public buildings—get a big share; no one knows just how big. Stanford Research Institute sets the figure at 15%, some others think it should be larger.

New uses for plywood are constantly being developed, and old uses are be-

ing expanded. Thus in housing plywood gains in two ways. Not only are more houses being built, but more plywood is going into each house, substituting for other materials. Stanford Research Institute took slide-rule and crystal ball to show the rising loss of lumber to plywood in the housing field. In 1940, SRI figures, plywood took 144-million board feet from its rival; by 1953 the figure was up to 458-million board feet; last year it had passed 1-billion board feet. By 1975 the Institute says the total will be 1.8-billion board feet.

• **The Plus Factors**—In residential building, the fastest growing market is for sheathing—the lower grades of plywood that are strong but not pretty. The big unsanded panels are used increasingly for subflooring, roofs, and siding. Plywood sheathing costs more than lumber, but it can be laid on faster. As the pay of carpenters goes up, plywood gets the nod. The share of plywood output going into sheathing has risen from 10% in 1951, to 25% today—and at a premium price a notch above its normal cost in relation to sanded plywood with a perfect surface.

The do-it-yourself trend has been a

boon, and one that the industry has seized with an all-out advertising drive on the virtues of plywood for home remodeling and furniture building. Plywood panels with grooved edges that go together without nailing have been on the market for some time. Recently, U.S. Plywood Corp. put out a series of furniture "patterns" by leading designers—to be made largely of plywood.

Boatbuilding is taking more plywood. One company, which this year expects to turn out 650 small cruisers retailing at \$1,800, reports that it has upped the use of plywood to a point where only about \$60 worth of lumber goes into each craft. Plywood is also a natural for the outboard craft—smaller and faster than cruisers—that have been made possible by more powerful outboard motors.

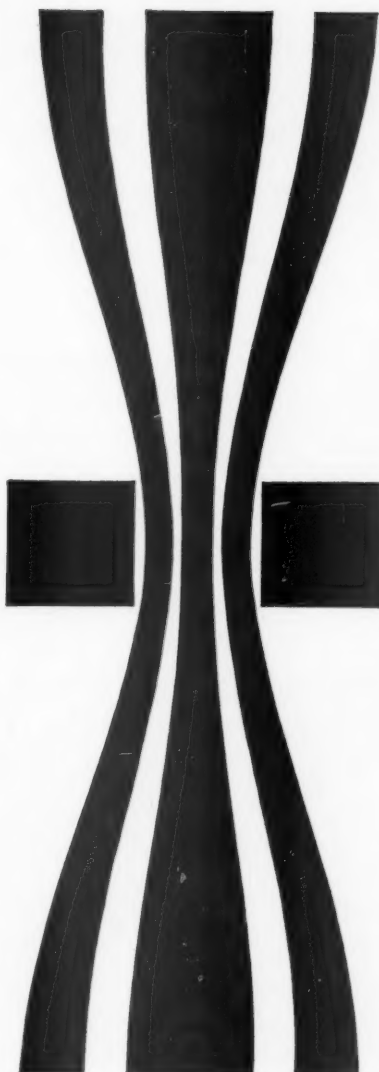
• **Raw Material**—The basic fact of life in the industry today is the growing scarcity of long, clear, knot-free trunks of old-growth virgin Douglas fir—the material that makes the clear surface veneers for the top grades of plywood. This has spurred the industry's search for new surfacing materials. These new surfaces often create substantially new products—which in turn open up healthy new markets.

Surface veneers of birch, knotty pine, mahogany, and redwood have upgraded plywood to a leading decorator's material. The Plyron "sandwich," a core of plywood with a facing of hardboard, combines the advantages of both materials. The plywood contributes strength while the hardboard gives smoothness—important for concrete forms—and also takes paint more easily than plywood. Plastic facings provide a very smooth surface for concrete forms. In addition, they can be made decorative, or highly resistant to moisture and abrasion; they can take paint easily, or they can not need paint at all. Paper surfaces, metal surfaces are also used—and also open new markets.

In fact, the production trend now is toward more sheathing at the lower end of the price scale (some mills produce nothing but sheathing) and, in the other direction, toward upgrading by adding new surfaces.

• **Southward**—In its need for new timber, the plywood industry has gradually edged southward along the Pacific Coast. In the 1930s and 1940s Washington was by far the biggest producing state. Late in the 1940s Oregon started coming up strongly; by 1952 it was about even with Washington; in 1953 it became the leading plywood state. Now California is moving up fast.

Producers are scrambling for raw ma-

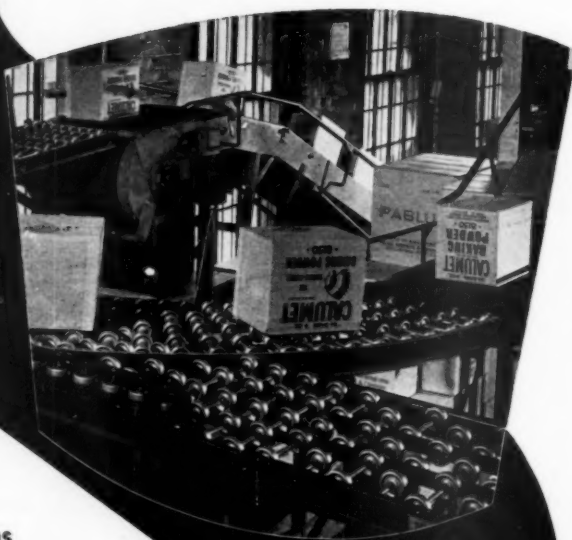


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terial supplies. Many plywood plants opened up owning little or no timber. They bought logs in the open market. That was fine while there were plenty of logs; the squeeze came as the supply became tighter.

There is a lot of trading of logs among those who own timber. A plywood company will use the pulp woods that it takes off its own land and trade the peeler—or plywood grade logs—to a plywood company in return for pulpwood off the plywood company's land. This makes it very tough to buy logs on the open market unless you have some trading logs from your own land.

• **Big Deals**—One giant transaction last fall—a transaction that is not yet completed—pointed up this general need for timber. Last November Blyth and Co., an investment banking firm, bought—on behalf of Georgia-Pacific Plywood Co.—the huge timber holdings of the Oregon-Mesabi Corp. The price was reported at over \$12-million. Blyth is still holding this land; word in the industry now is that it will wait until May before selling, then figure its profit on the deal as a capital gain, rather than a commission. But the motive behind the deal was clearly Georgia-Pacific's need for good timber land.

Another major deal in the industry last fall, U. S. Plywood Corp.'s purchase of the big Associated Plywood Mills, Inc., was cut from a slightly different pattern. U. S. Plywood is primarily a sales company with close to 70 warehouses around the country. It needed more production to supply those outlets, so it bought Associated—and also got Associated's large timber holdings.

• **Small Loggers**—The rising price of good timber has affected the small loggers who bid for relatively minor patches of government timber. More and more, they go first to a plywood company and ask what it will pay for peeler logs. Then the logger figures in his own cost and enters his bid. As a matter of public relations the big plywood or lumber companies do not bid directly; if they did the little loggers would complain that they were being squeezed out of the logging of public timber. The little logger gets his market all set before he bids—often at a level that would force him to charge a premium for the logs. He knows that if he is high bidder the plywood company backing him will put up the necessary deposit with the government.

Plywood is essentially an industry of many small producers. The biggest single factor is U. S. Plywood, which markets around 15% of the total—roughly half from its own production, half from sales contracts with independent producers. The three industry leaders (U. S. Plywood, M and M



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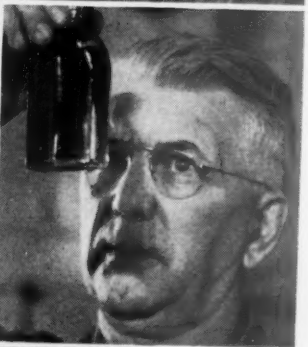
change and adjust temperature to the precise degree called for at every stage. A similar cam controls pressure. The result is strong, uniform fibers to improve the quality of Hammermill Bond.

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Wood Working Co., and Georgia-Pacific) together have somewhere around 30% of total output of fir plywood.

• **Jubilee**—The industry—through the Douglas Fir Plywood Assn.—is planning an all-out promotion this year to celebrate its golden jubilee—the 50th anniversary of the first manufacture of plywood. The big splash will come in June. Behind the promotion is the plywood makers' knowledge that they must keep on building markets. The industry talks of producing 4.4-billion sq. ft. this year. To keep up with that kind of production, it would have to find new uses for more than 10-million sq. ft. of plywood per week.

## Another Lump!

As U. S. sugar intake rises, the mainland producers want their quotas raised. It's up to Congress.

American sugar growers are beating the drums for revision of the Sugar Act of 1948.

Under the act, the U. S. sugar market is about as regulated as a market can be. The Secretary of Agriculture decides, each year, on probable consumption requirements, then limits to that amount the sugar that can be sold in the U. S. Once the total market is decided the act specifically carves out the slices that will go to each group; mainland beet and sugar growers have their quotas, so do offshore U. S. territories, and so do foreign countries.

One of the stated purposes of the act is to "protect the welfare of the domestic sugar industry." Mainland sugar production costs a good deal more than offshore production; there is no doubt that mainland growers would fare badly in a free market. Also, tropical sugar cane grows prolifically and in peacetime is almost always over-produced. The U. S., in addition to protecting its mainland growers, is interested in protecting the economies of its territories, and of the Philippines and Cuba. Hence the legislation, which balances the needs and demand of the various groups.

• **Quotas**—The act sets fixed quotas for American sugar producing areas (the mainland, Hawaii, Puerto Rico, and the Virgin Islands) and for the Philippines—they can only sell that much in the U. S. market year after year. Cuba gets 96% of the difference between these fixed quotas and total U. S. consumption; other foreign countries get the rest.

At current consumption levels, the mainland sugar beet and cane growers are getting 27% of the U. S. market;



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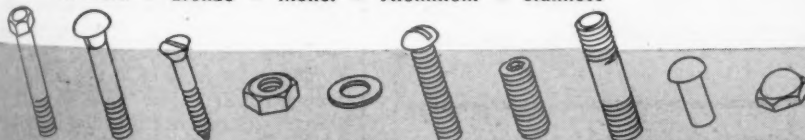
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all the fixed quota areas together and getting about two-thirds. But only Cuba (and the other foreign countries in a very small way) stands to gain from the steady increase in consumption. Sugar experts figure that there is an increase in U.S. sugar consumption of between 100,000 tons and 125,000 tons per year, due to population changes alone.

• **Bigger Share**—Now the mainland growers, led by the American Sugar Cane League and the U.S. Beet Sugar Assn. want a bigger share of the market. Both sugar beet and cane are under acreage allotments and marketing restrictions. Growers are finding that as their yields per acre go up their acreage is actually being cut back to keep them within the fixed production they can sell under the law as it now stands. Here is what they want:

• An immediate increase in their quotas, effective for the 1955 growing year.

• Some sort of amendment permitting them to share in the increasing U.S. consumption. The figures most often mentioned would give the domestic areas 55% of the increase in consumption, leaving 45% of the increase to Cuba and other foreign countries. Year-to-year changes in sugar consumption are relatively small so in any one year this provision wouldn't make too much difference in quotas. Over the long run, though, it would add up. For example, estimated consumption for this year is about 1-million tons, above the 1949 level; if the 55%-45% split had been in effect over the past six years, the quota for domestic producers would be higher now by 550,000 tons.

• **Opposition**—Cuba, of course, is strongly opposed to changing the act. Raising mainland quotas would cut Cuba's share immediately; giving domestic areas a share of consumption gains would limit its future growth. Cuba maintains that the present act must be honored by this country as it stands—somewhat in the nature of a treaty between two governments. Domestic growers, on the other hand, claim that they made "special and temporary concessions" to Cuba in 1948 and that now, under hardship, they want to restore their "historic right" continuously to share in the growth of the U.S. sugar market.

The State Dept. is backing Cuba; so are some congressmen who are concerned with the island's economy. Vice-Pres. Nixon, speaking in Havana, Cuba, went on record against revision; Pres. Eisenhower, on the other hand, has said only that if the act is going to come up for revision in this session of Congress, let it be soon so that it doesn't get caught up in the legislative log-jam later.



At White House urging, Agriculture Secy. Ezra T. Benson started closed hearings on the question last week. Out of the hearings will come recommendations—then a bill will be introduced in Congress. But congressmen from the sugar states are breathing hard down Agriculture's neck; if recommendations aren't forthcoming soon, one of them, probably Sen. Ellender of Louisiana, will introduce a bill anyway. Odds are that there will be some kind of Congressional action by early spring.

## COMMODITIES BRIEFS

Surplus farm products held by Commodity Credit Corp. totaled \$7.2-billion at yearend—more than 25% higher than a year ago. However, a combination of lower support prices for dairy products, crop controls, and shortages due to drought cut government support on the 1954 crop to less than it spent on the 1953 crop.

A new polyethylene plant built by Union Carbide & Carbon Corp. at Seadrift, Tex., is now in full production, increasing industry output by more than 25%. The plastic is widely used for packaging, molded houseware products, and in the electrical and electronic industries.

High natural rubber prices have brought another boost—the third since November—in the prices of auto and truck tires. At midweek, natural rubber was up to 38¢ a lb.—compared with 20¢ a lb. a year ago and 33¢ a lb. just one month ago.

Copper users, hungry for supplies, take hope from the fact that strikers at the Rhodesian mines, in Africa, are slowly going back to work. But ore that's mined now won't show up as refined metal for two to three months. In the meantime, the Dept. of Commerce has barred all exports of refined copper from domestic ores during February and March, and will limit exports of scrap to 6,000 tons a month for the two months (BW—Feb. 12'55, p34).

Synthetic detergents continue to gain at the expense of soaps. Total sales of soap and synthetics in 1954 were up 6% over the year before, but, within this total amount, soap sales fell 1% while the synthetics were up 12%.

Frozen fish sticks—and their quick popularity—have put new life into the commercial fishing industry, according to the Interior Dept. Sales of the sticks zoomed to over 50-million lb. last year, compared with 7.5-million lb. in 1953.



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## Uranium Milling: Bottleneck?

Some say ore is piling up alarmingly while awaiting processing, but AEC sees nothing to worry about. A big new mill is in the works; others are expanding.

The uranium market, always excitable, has lately been jittering more than usual. It's worried over reports that ore is piling up on the Colorado Plateau, the nation's major mining area, instead of being promptly milled and sent to the government's atomic energy feed materials plants.

In an industry that's shrouded in secrecy, speculators watch the drift of the tiniest straw. If the ore back-up meant, for example, that buying for the weapons program had slowed, people in the trade could get pretty frightened.

This week, though, it seems that the pile-up is merely an effect of uranium's economics.

The explanation is easy: Ore is being mined faster than it can be processed. The significance is interpreted differently, though, according to whose viewpoint you are getting:

- The Atomic Energy Commission and most of the established processors regard the expansion of milling facilities as progressing at a satisfactory rate. A new mill, the 10th in the country, is about to be announced; an 11th is being considered.

- Promoters of additional mills, and a few of those already in the business, contend that a serious bottleneck in processing facilities is developing because of AEC red tape and lack of incentive to new producers.

- How Much Expansion?—AEC is on the verge of announcing a contract with Uranium Reduction Co. to build a \$7-million mill at Moab, Utah. As mills go, this will be a big one. It will concentrate ore from Charles Steen's Mi Vida mine (BW—Aug. 1'53,p28).

The new company is headed by Steen, as vice-president, and E. H. Snyder of Salt Lake City, as president. Snyder is also president of Combined Metals Reduction Co., a major miller of lead and zinc.

The 11th mill, under consideration now, would be at Edgemont, S. D.

In the past year, AEC has approved expansion of six existing mills and construction of one other:

- Kerr-McGee Oil Industries, Inc., opened the newest one last fall at Shiprock, N. M. It is just hitting full production.

- Anaconda Copper Mining Co. operates a large mill at Grants, N. M., and has announced two expansions since May.

- Vitro Uranium Co., a division of

Vitro Corp. of America, has completed a major expansion at Salt Lake City and is thinking of another.

- Vanadium Corp. of America has AEC approval for expansion of plants at Durango and Naturita, Colo.

- Climax Uranium Co. is completing expansion at Grand Junction, Colo.

Besides these, U.S. Vanadium Co. has mills at Rifle and Uravan, Colo., and the government operates a mill, expanded last fall, at Monticello, Utah.

- Piling Up—There's no doubt that ore is piling up awaiting processing. The question is: How alarming is this pile-up?

This month's semiannual report of AEC noted that "current ore production is in excess of current processing capacity, resulting in a buildup of large stockpiles of ore at a number of points."

However, Jesse Johnson, AEC's director of raw materials, said later that stockpiles "are being accumulated where new mills are going up or may be going up soon." He said the accumulation was not excessive anywhere except at the government-owned Monticello mill and "possibly the private mill at Uravan, Colo., which had some difficulty reaching full production."

- Problems—Official statements view the stockpiling as deliberate, a way of assuring an ample supply of ore to keep a mill busy through its period of amortization. AEC and most milling companies obviously want to go slow until they can see exactly where new facilities will pay off.

A year or two from now, mining experts predict, the prospecting boom will peter out. Most of the substantial deposits will have been found, and the professional producers will take over. Companies will then have a better idea of where to put mills. Meanwhile, unforeseen productivity of mines is pushing out the ore faster than existing plants can process it.

Companies that want to get into milling complain that AEC is too slow in authorizing new projects and too stiff about terms of the five-year contracts for processing ore.

"Congress and the public rejoice when an individual miner strikes it rich," said Carroll L. Wilson, vice-president of Metals & Controls Corp. and former AEC general manager, last fall, "but they scold when any company big enough to enter the milling business makes a profit commensurate with the risks involved."

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# Facing Up to a Snarling Bear

The bloodless coup in Moscow illustrates once more the mysterious nature of the Soviet system. We know so little about its ways that we must resort to speculation based on small morsels of fact. Now we hear that Nikolai Bulganin, the new premier, is merely a front man for Nikita Khrushchev, or perhaps, for Marshal Zhukov. It is impossible to speak with certainty about who is in control because our speculations are not built on a bedrock of real knowledge, but only on the shifting sands of ignorance.

Nor are we alone in our ignorance. Because those who hold power in Russia do so through conspiracy instead of by popular will, it goes without saying that they, too, are subject to human doubts and fears. Can Bulganin be sure of Khrushchev's support? Will Zhukov put both of them out of the way? Can Malenkov's old cabal be trusted by the new regime?

These are only some of the questions that must plague the troubled sleep of Russia's strong men—all bred in the Stalin school of conspiracy. And even the most powerful of them cannot be sure that he has the answers—the very nature of a conspiracy makes it impossible for anyone to know everything that is going on in the minds of his colleagues.

## Glimpse of Failure

But despite the ominous aura of intrigue and mystery that is part and parcel of the Soviet system, we are able to get a real glimpse of the forces and pressures that led to the upheaval (BW—Feb. 12 '55, p. 25). And this makes it possible to determine what our own policy should be.

On the domestic front, Malenkov's short-lived regime attempted to give Communism a new look by providing the Soviet consumer a bigger share of productive output. This entailed a shift of resources from heavy industry to consumer goods industry. In addition, he made concessions to the rural population as a way of increasing farm output.

In its foreign policy, the Malenkov regime was primarily associated with the slogan of "peaceful co-existence." The snarling, grabbing bear of the post-war Stalin era was replaced by a softer, gentler species making sounds like Picasso's dove of peace. By painless gestures, such as the release of illegally held Western citizens and the sending of Soviet scientists to international meetings, Malenkov gave some hope that our problems could be solved through diplomatic negotiations.

The fall of Malenkov means the end of this relatively peaceful interlude of conciliatory tactics at home and abroad. From the viewpoint of the Communist party and the Red Army, his policy was a failure on both fronts.

For example, the increased production of consumer goods and the granting of concessions to the peasantry gave the Russian population an inkling of what they had been missing and how much more they wanted. This created unrest that jeopardized the bureaucratic machine. Moreover, the shift in production seriously strained the economy.

In foreign affairs, the aggressive policy adopted by the Chinese Reds—with Soviet backing—was a sign that Malenkov's conciliatory tactics were no longer the order of the day. Undoubtedly, the main reason for the change was the West's increase in strength during the two years since Stalin's death—progress toward German rearmament and the growing unity of the free world clearly disturbed the Red Army.

Malenkov, of course, never contemplated a shift from the Communist goal of world domination. The change was in the means, not the ends. The Soviet system was still as alien to our understanding as it was abhorrent to our ideals, and Malenkov never came through with a recognizable act of good faith, such as Pres. Eisenhower had demanded, but merely gave the illusion of a change, rhetorically playing on our own hopes and wishes.

Now the billing and cooing is being replaced by the more familiar snarling bear, with all the trappings of accusations and threats that are so characteristic of imperial Communism.

What should our policy be in the face of this toughness? First, we should be grateful, because it means that we can put aside exaggerated hopes, harbored so fondly by many of our allies, that the Russians are willing to establish a full-fledged peace with the West.

## Emphasis on Strength

The change in Moscow, however, does not mean that we must accept war as inevitable. Rather, we must place renewed emphasis on peace. But now it is clear that peace can only be maintained through preserving our position as the strongest military power in the world.

We must not only maintain our present supremacy, but resolve to expand our productive capacity so that there will be no doubt of our overwhelming strength in any future showdown. This is essential in the momentous struggle with Communism.

Russia will remain, as Winston Churchill put it, "a riddle wrapped in mystery inside an enigma." But one thing we know is that the Soviet dictatorship recognizes strength. A policy based on strength that proceeds with even-tempered firmness will prepare us for anything the Russians might do. It is more likely to deepen the crisis in the Soviet Union than to lead to war.



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In thousands of communities throughout the country, taxpayers are finding that the operation of school buses is becoming an increasingly important responsibility. Greater attention is being paid not only to safety but to efficiency and economy.

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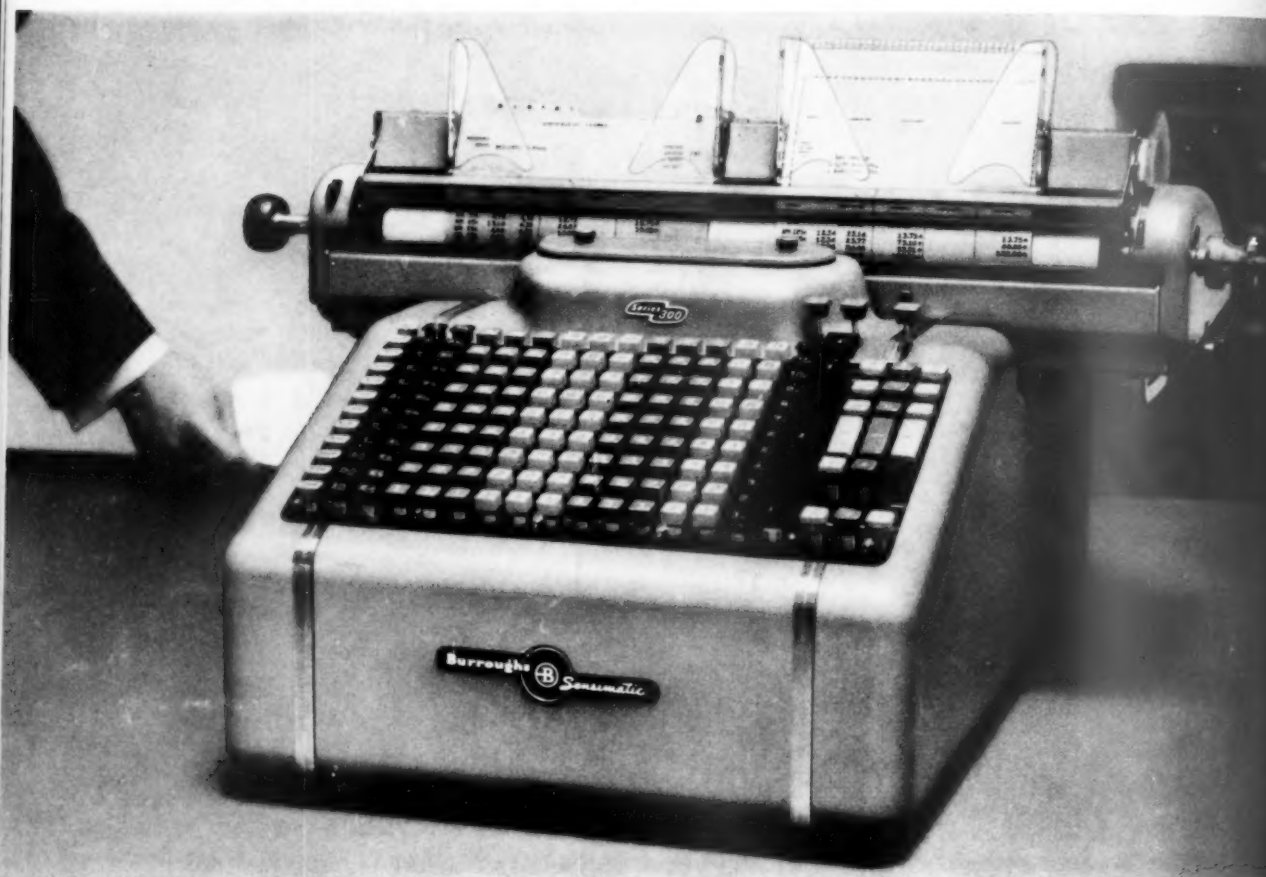


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